

## *Curriculum Vitae*

### **PERSONAL INFORMATION:**

Name/Surname: Sotirios – Spyridon Vamvakas  
Marital Status: Married, 2 Children  
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### **EDUCATION:**

November 2006: **Doctorate (PhD) Biochemistry – Molecular Biology**  
Department of Pharmacy, School of Health Sciences, Patras University

September 2001: **Post-Graduate Studies (M.Sc.) Applications in Basic Medical Sciences.**  
(Specialization: Pathobiochemistry)  
Faculty of Medicine, School of Health Sciences, Patras University

July 1999: **Chemistry Degree**  
Department of Chemistry, School of Natural Sciences, Patras University

### **PROFESSIONAL EXPERIENCE**

Dec. 2023- Today: **Assistant Professor** Structural Biochemistry & Biomolecules' Chemical Analysis, Department of Nutrition Science & Dietetics, School of Health Sciences, University of Peloponnese.

2019 – 2022 **Adjunct Lecturer**, Department of Nutrition Science & Dietetics, School of Health Sciences, University of Peloponnese.

2021 – 2023 **Teacher in Secondary Education**

2016 – 2021 **Post-Doctoral Fellow**, Laboratory of Renal Centre, Faculty of Medicine, School of Health Sciences, Patras University.

2008 - 2019 **Adjunct Lecturer**, Department of Food Technology, Technological Educational Institute of Peloponnese

2009-2013 **Post-Doctoral Fellow**, NCSR. "Democritus"

2007-2009 **Post-Doctoral Fellow**, Hellenic Pasteur Institute

### *FORMER & CURRENT RESEARCH INTERESTS:*

My research activity is focused in the field of Biochemistry, Molecular & Cell Biology as well as Biochemical Analysis. I have been involved in the study of neurodegenerative diseases and specifically in multiple sclerosis. Additionally, another point of research interest was the elucidation of oxidative driven cellular senescence mechanisms in cultured human cells and through their genetic modifications using viral infection systems. Instrumental chemical-biochemical analysis was employed for the structural determination of several molecules as well as for the qualitative and quantitative determination of biomolecules in biological samples. My current research interests are focused on revealing the mechanisms through which metabolic disorders can develop several morbidities, as well as, identifying biomarkers that can be used to determine the prognosis - severity of these diseases.

### *RESEARCH PUBLICATIONS:*

1. Kehagias D, Lampropoulos C, Georgopoulos N, Habeos I, Kalavrizioti D, Vamvakas SS, Davoulou P, Kehagias I. Diabetes Remission After LRYGBP With and Without Fundus Resection: a Randomized Clinical Trial. *Obes Surg.* 2023 Nov;33(11):3373-3382. doi: 10.1007/s11695-023-06857-z. Epub 2023 Oct 2. PMID: 37783932; PMCID: PMC10602944.
2. Chasapi S.A., Karagkouni E., Kalavrizioti D., Vamvakas S., Zompra A., Takis P.G., Goumenos D.S., and Spyroulias G.A. NMR-Based Metabolomics in Differential Diagnosis of Chronic Kidney Disease (CKD) Subtypes. *Metabolites*, 2022, 12, 490.
3. Kassoumi K., Kousoulou P., Sevastos D, Vamvakas S.-S., Papadimitriou K., Kapolos J., and Koliadima A. Fermentation Efficiency of Genetically Modified Yeasts in Grapes Must. *Foods*, 2022, 11, 413.
4. Vamvakas S.-S.\*, Chroni M., Genneos F., Gizeli S. *Vaccinium myrtillus L.* dry leaf aqueous extracts suppress aflatoxins biosynthesis by *Aspergillus flavus*. *Food Bioscience*, 2021, 39,100790
5. Vamvakas S.-S.\*, Kapolos J. Factors affecting yeast ethanol tolerance and fermentation efficiency. *World J. Microbiol Biotechnol.* 2020, 36(8):114. doi: 10.1007/s11274-020-02881-8
6. Farmakis L., Koliadima A., Vamvakas S. Stability of melamine-formaldehyde (MF) resin under different pH and ionic strength values. *Journal of Food Processing and Preservation.* 2020, 44(6), e14471.
7. Ntrinas T., Papasotiriou M., Balta L., Kalavrizioti D., Vamvakas S., Papachristou E., Goumenos D.S. Biomarkers in Progressive Chronic Kidney Disease. Still a Long Way to Go. *Prilozi*, 2019, 40(3), 27-39.
8. Vamvakas S.-S.\*, Kapolos J., Farmakis L., Koskorelou G., Genneos F. Ser625 of msn2 transcription factor is indispensable for ethanol tolerance and alcoholic fermentation process. *Biotechnol. Prog.*, 2019, 35(5):e2837. doi: 10.1002/btpr.2837. Epub 2019, May 23.
9. Vamvakas S.-S.\*, Kapolos J., Farmakis L., Genneos F., Damianaki M-E., Chouli X., Vardakou A., Liosi S., Stavropoulou E., Leivaditi E., Fragki M., Labrakou E., Gashi E-G, Demoli D. Specific Serine Residues of Msn2/4 are Responsible for Regulation of Alcohol Fermentation Rates and

Ethanol Resistance. *Biotechnol. Prog.*, 2019 35(2):e2759. doi: 10.1002/btpr.2759. Epub 2018, Dec 24.

10. Vamvakas S.S., Mavrogonatou E., Kletsas D. Human nucleus pulposus intervertebral disc cells becoming senescent using different treatments exhibit a similar transcriptional profile of catabolic and inflammatory genes. *Eur. Spine J.*, 2017, 26(8), 2063-2071.
11. Vivian Tseveleki, Theodore Tselios, Ioannis Kanistras, Olga Koutsoni, Maria Karamita, Sotiris-Spyros Vamvakas, Vasso Apostolopoulos, Eleni Dotsika, John Matsoukas, Hans Lassmann, Lesley Probert. Mannan-conjugated myelin peptides prime non-pathogenic Th1 and Th17 cells and ameliorate experimental autoimmune encephalomyelitis. *Exp. Neurology.*, 2015, 267, 254-67
12. Evangelidou M., Karamita M., Vamvakas S.-S., Szymkowski D.E., Probert L. Altered Expression of Oligodendrocyte and Neuronal Marker Genes Predicts the Clinical Onset of Autoimmune Encephalomyelitis and Indicates the Effectiveness of Multiple Sclerosis-Directed Therapeutics. *J. Immunol.*, 2014, 192(9), 4122-33.
13. Raikos V., Vamvakas S.-S., Sevastos D., Kapolos J., Karaiskakis G., Koliadima A. Water content, temperature and biocide effects on the growth profile of bacteria isolated from JP-8 aviation fuel storage tanks. *Fuel*, 2012, 93, 559-66.
14. Emmanouil M., Taoufik E., Tseveleki V., Vamvakas S.-S., Probert L. A role for neuronal NF- $\kappa$ B in suppressing neuroinflammation and promoting neuroprotection in the CNS. *Adv. Exp. Med. Biol.*, 2011, 691, 575-581.
15. Raikos V., Vamvakas S.-S., Kapolos J., Koliadima A., Karaiskakis G. Identification and characterization of microbial contaminants isolated from stored aviation fuels by DNA sequencing and restriction fragment length analysis of a PCR-amplified region of the 16S rRNA gene. *Fuel*, 2011, 90(2), 695-700.
16. Tseveleki V., Rubio R., Vamvakas S.-S., White J., Taoufik E., Petit E., Quackenbush J., and Probert L. Comparative gene expression analysis in mouse models for multiple sclerosis, Alzheimer's disease and stroke reveals common brain defense pathways and disease-specific processes. *Genomics*, 2010, 96(2), 82-91.
17. Evangelidou M., Tseveleki V., Vamvakas S.-S., and Probert L. TNFRI is a positive T-cell costimulatory molecule important for the timing of cytokine responses. *Immunol. Cell Biol.* 2010, 88(5), 586-595.
18. Emmanouil M., Taoufik E., Tseveleki V., Vamvakas S.-S., Tselios T., Karin M., Lassmann H., and Probert L. Neuronal I kappa B kinase beta protects mice from autoimmune encephalomyelitis by mediating neuroprotective and immunosuppressive effects in the central nervous system. *J. Immunol.* 2009, 183(12), 7877-89.
19. Vamvakas S.-S., Leondiadis L., Pairas G., Manesi-Zoupa E., Spyroulias G.A., and Cordopatis P. Folding in solution of the C-catalytic protein fragment of Angiotensin Converting Enzyme. *Journal of Peptide Science*, 2009, 15(8), 504-10.
20. Vamvakas S.-S., Leondiadis L., Pairas G., Manesi-Zoupa E., Spyroulias G.A., and Cordopatis P. Expression, purification, and physicochemical characterization of the N-terminal active site of human angiotensin-I converting enzyme. *Journal of Peptide Science*, 2007, 13(1), 31-6.

21. Vynios D. H., Vamvacas S.-S., Kalpaxis D.L., and Tsiganos C.P. Aggrecan immobilization onto polystyrene plates through electrostatic interactions with spermine. *Analytical Biochemistry*. 1998, 260, 64-70.

### *ORAL & POSTER PRESENTATIONS:*

8 oral and poster presentations in international and 9 in national congresses

### *AWARDS:*

1999: M.Sc. Scholarship. EPEAEK, Faculty of Medicine, School of Health Sciences, Patras University

2001: Ph.D. Scholarship (NCSR “D”)

### *SKILLS & ACTIVITIES*

Aug. 2022 – Today:

Reviewer in:

- Biomolecules
- Nutrients
- Fermentation

Foreign Languages:

English

IT:

MS Windows, MS Office

Analysis Software (SPSS, Graphpad Prism, Origin, Gel Analyzer)

Linux