

Emmanuel Psylinakis

Work Address: Department of Nutrition and Dietetics Sciences, Trypitos,
72300, Sitia, Lasithi, Crete

Home Address: Sitia, Lasithi, Crete

Email: psylinak@hmu.gr

Date of Birth: December 4, 1972

Place of Birth: Agios Nikolaos, Crete

Nationality: Greek

ACADEMIC POSITION

Assistant Professor specializing in "Nutritional Bioorganic Chemistry" at the Department of Nutrition & Dietetics, School of Health Sciences, Hellenic Mediterranean University (HMU).

HIGHER EDUCATION

- 27/7/1995:** B.Sc. in Chemistry, Faculty of Science, Aristotle University of Thessaloniki
Focus on Biochemistry-Analytical Chemistry
Courses: "Introduction to Biochemistry", "Metabolism Control", "Enzymology", "Introduction to Biotechnology", "Clinical Chemistry", "Biochemistry Laboratory", "Food Analysis and Control", "Food Biochemistry", "Organization of a Clinical Chemistry Laboratory"
- 1/2/2001:** PhD in Chemistry, Biochemistry Laboratory, Department of Chemistry, Faculty of Science, University of Crete
Dissertation Title: Structural Study of Photosystem II of Higher Plants and Spectroscopic Study of Lipoxygenase
Supervisor: Professor Dimitrios Ghanotakis, Department of Chemistry, University of Crete
- 1/11/2011:** Master's Degree in Biochemistry
Dissertation Title: Isolation and Structural Characterization of Subcomplexes and Proteins of the Photosystem II Core in Higher Plants
Supervisor: Professor Dimitrios Ghanotakis, Department of Chemistry, University of Crete

RESEARCH EXPERIENCE

- **Technological Educational Institute (TEI) of Crete (2/1/2007 - 30/6/2007)**
Project: "Archimedes II - Enhancement of Research Teams at TEI of Crete",
Subproject 2: Experimental Nutrition: Effects of Extracts from Endemic
Plants of Crete on Mammalian and Human Metabolism
Tasks:
 - PE1: Experimental Nutrition and Evaluation of Endemic Plants
 - PE1.4: Repetition of Herb Bioactivity Experiments with Parameter
Modifications. Biochemical Approach
 - PE1.5: Compilation and Evaluation of Data
 - PE3: Dissemination of Interdisciplinary Research

- **TEI of Crete (2/10/2006 - 30/9/2007)**
Project: "Environment - Archimedes - Enhancement of Research Teams at
TEI of Crete", Subproject 9: "Investigation of the Herbicidal Action of
Capsaicinoids"
Tasks:
 - PE3: Study of Capsaicinoid Biosynthesis in Cultivated Species of
Capsicum
 - Quantitative Estimation of Capsaicinoids in Extracts from In Vivo and
In Vitro Material

- **TEI of Crete (1/10/2005 - 31/12/2005)**
Project: "Archimedes II - Enhancement of Research Teams at TEI of Crete",
Subproject: Experimental Nutrition: Effects of Extracts from Endemic
Plants of Crete on Mammalian and Human Metabolism
Tasks:
 - PE1: Experimental Nutrition and Evaluation of Endemic Plants
 - PE2: Toxicological Testing of Herbs

- **TEI of Crete (1/12/2004 - 31/8/2006)**
Project: "Environment - Archimedes - Enhancement of Research Teams at
TEI of Crete", Subproject 9: "Investigation of the Herbicidal Action of
Capsaicinoids"
Tasks:
 - PE1: Effects of Capsaicinoids on Thylakoid Membrane Fractions In
Vitro

- PE3: Study of Capsaicinoid Biosynthesis
- **Postdoctoral Fellow, Institute of Molecular Biology and Biotechnology (IMBB), Foundation for Research and Technology-Hellas (FORTH) (1/8/2002 - 31/12/2004)**
Project: Isolation and Characterization of Chitin Deacetylases in the Enzyme Technology Group of the Biotechnology Department
- **Project Contract with National Center for Scientific Research (NCSR) Demokritos (1/1/2000 - 31/3/2001)**
Project: "Natural and Artificial Photosynthesis. Photocatalytic Mechanisms of Redox Cooperation of Metal Centers and Free Radicals with Water as Substrate"
- **University of Crete (15/8/1996 - 14/8/1997)**
Project: "Study of Herbicide Effects on Photosystem II. Design of New Herbicides and Identification of Bioherbicides"
- **University of Crete (1/1/1996 - 30/8/1996)**
Project: "Study of the Role of Pigments in Photosynthetic Conversion of Solar Energy into Chemical Energy"

TEACHING EXPERIENCE

- **Scientific Associate, Department of Nutrition and Dietetics, TEI of Crete (2010-2016)**
Courses Taught:
 - Organic Chemistry & Structural Biochemistry (Theory)
 - Chemistry & Food Analysis (Practical)
- **Scientific and Laboratory Associate, Department of Nutrition and Dietetics & Department of Plant Production, TEI of Crete (2001-2006)**
Courses Taught:
 - Organic Chemistry & Biochemistry I (Theory and Tutorials)
 - Biochemistry I (Theory and Laboratory)
 - Agricultural Chemistry (Laboratory)
 - General Chemistry (Theory and Laboratory)

RESEARCH INTERESTS

- Hormone Biochemistry

- Enzymatic Biochemistry
- Lipid Biochemistry
- Mediterranean Diet
- Correlation of Diet with Biochemical and Clinical Health Markers
- Nutritional Value of Foods, Emphasis on Bioactive Components

PUBLISHED SCIENTIFIC WORK

A. THESES

- **PhD Thesis:** Structural Study of Photosystem II of Higher Plants and Spectroscopic Study of Lipoygenase. Department of Chemistry, University of Crete, 2001.
URI: https://www.openarchives.gr/aggregatoropenarchives/edm/elocus/000018-dlib_8_7_3_metadata-dlib-2001psylinakis.tkl
- **Master's Thesis in Biochemistry:** Isolation and Structural Characterization of Subcomplexes and Proteins of the Photosystem II Core in Higher Plants Department of Chemistry, University of Crete, 2011.
URI: https://www.openarchives.gr/aggregatoropenarchives/edm/elocus/000018-dlib_c_c_5_metadata-dlib-1327406540-384022-23504.tkl

B. MONOGRAPH

Organic Chemistry and Structural Biochemistry, Dr. Emmanouil Psylinakis. Self-published, 185 pages, Sitia, 2020. ISBN: 978-618-00-1947-6

C. PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS/BOOKS

- Adherence to the Mediterranean diet is linked to reduced psychopathology in female celiac disease patients. Spyridaki, **E. Psylinakis**, D. Chatzivasili, N. Thalassinou, V. Kounelaki, A. Charonitaki, A. Markaki. *Psychology, health & medicine* 2023 28(6), 1634-1639.
- Dietary Habits and Depression among Greek Multiple Sclerosis Patients. **E. Psylinakis**, V. Kounelaki, N Thalassinou, A.G. Markaki, A. Spyridaki. *Ann Nutr Food Sci*. 2022; 5(1): 1048.
- The association between handgrip strength and predialysis serum sodium level in patients with chronic kidney disease stage 5D. A. Markaki, P. Kyriazis, E.K.

- Dermitzaki, S. Maragou, **E. Psylinakis**, A. Spyridaki, H. Drosataki, D. Lygerou, M. Grammatikopoulou, I. Petrakis, K.G. Stylianou. *Frontiers in Medicine (Lausanne)* 2021 7:610659.
- Antioxidant activity of Cretan herbs and herbal combinations. **E. Psylinakis**, M. Koukoulanaki, A. Markaki, A. Spyridaki. *Journal of Food & Nutritional Sciences* 2020 2(1): 59-65.
 - Association between Dietary Intake and Nutritional Status in Eastern Mediterranean Patients receiving Hemodialysis. A. Markaki, **E. Psylinakis**, Xenophon Theodoridis, P. Dimitropoulakis, A. Charonitaki, A. Spyridaki. *Mediterranean Journal of Nutrition and Metabolism* 2020 13:175-182.
 - Nutritional status in hemodialysis patients is inversely related to depression and introversion. A. G. Markaki, A. Charonitaki, **E. Psylinakis**, P. Dimitropoulakis, A. Spyridaki. *Psychology, Health & Medicine* 2019 3:1-7.
 - Adiponectin and End Stage Renal Disease. A. Markaki, **E. Psylinakis**, A. Spyridaki *Hormones*. 2016 15(3):345-54.
 - Purification, crystallization and preliminary X-ray analysis of the peptidoglycan N-acetylglucosamine deacetylase BC1960 from *Bacillus cereus* in the presence of its substrate (GlcNAc)₆. Tsalafouta A, **Psylinakis E**, Kapetanidou EG, Kotsifaki D, Deli A, Roidis A, Bouriotis V, and Kokkinidis M. *Acta crystallographica. Section F, Structural biology and crystallization communications* (2008) 64(Pt 3):203-5.
 - Crystal structure of the BcZBP, a zinc-binding protein from *Bacillus cereus*. Vasiliki E. Fadouloglou, Alexandra Deli, Nicholas M. Glykos, **Emmanuel Psylinakis**, Vassilis Bouriotis and Michael Kokkinidis. *The FEBS journal* (2007) 274(12):3044-54
 - A critical role for peptidoglycan N-deacetylation in *Listeria* evasion from the host innate immune system. Ivo G. Boneca, Olivier Dussurgetc, Didier Cabanes Marie-Anne Nahori Sandra Sousa Marc Lecuit **Emmanuel Psylinakis**, Vassilis Bouriotis. *Proceedings of the National Academy of Sciences of the United States of America* (2007) 104(3):997.
 - Purification, crystallization and preliminary characterization of a putative LmbE-like deacetylase from *Bacillus cereus*. Fadouloglou VE, Kotsifaki D, Gazi AD, Fellas G, Meramveliotaki C, Deli A, **Psylinakis E**, Bouriotis V, and Kokkinidis M. *Acta crystallographica. Section F, Structural biology and crystallization communications* (2006) 62(Pt 3):261-4.
 - Photosystem II: Composition and Structure Spyridaki A., **Psylinakis, E** and Ghanotakis D., F. In: *Biotechnological applications of Photosynthetic Proteins: Biochips, Biosensors and Biodevices*. (editors: MT Giardi and E Piletska). (2006) Landes Bioscience. -ISBN: 0-387-33009-7
 - Peptidoglycan N-acetylglucosamine deacetylases from *Bacillus cereus*, highly conserved proteins in *Bacillus anthracis*. **Psylinakis E**, Boneca IG, Mavromatis K, Deli A,

Hayhurst E, Foster SJ, Vårum KM, and Bouriotis V. *The Journal of biological chemistry* (2005). 280(35):30856-63.

- Isolation and crystallization of CP47, a Photosystem II chlorophyll binding protein. Degradation of CP 47 upon dissociation from the core complex. **E. Psylinakis**, G. Fritzsich and D.F. Ghanotakis *Photosynthesis Research* (2002), 72, 211-6
- Isolation and spectroscopic characterization of a recombinant bell pepper hydroperoxide lyase. **E. Psylinakis**, E.M. Davoras, N. Ioannidis, M. Trikeriotis, V. Petrouleas and D.F. Ghanotakis. *Biochimica et Biophysica Acta. (BBA)-Molecular and Cell Biology of Lipids* (2001) 55811, 1-9.
- Investigation of the structure of spinach photosystem II reaction center complex. Tsiotis, G., **Psylinakis, M.**, Woplensinger, B., Lusting, A., Engel, A. and D. Ghanotakis. *European Journal of Biochemistry*. (1998) 259, 1-6.
- Analysis of the photosystem II reaction centers using scanning transmission electron microscopy. Tsiotis, G., **Psylinakis, M.**, Woplensinger, B., Engel, A. and Ghanotakis, D. *In Photosynthesis: Mechanisms and Effects (G. Garab, ed), (1998) Vol. II, 949-952. Kluwer Academic Publishers, Printed in the Netherlands. (ISBN: 0-7923-5543-1)*

D. FULL PAPERS IN PROCEEDINGS OF NATIONAL CONFERENCES WITH PEER REVIEW SYSTEM.

Cloning, expression and characterization of a polysaccharide deacetylase from bacillus cereus. **Psylinakis E**, Deli A and Bouriotis V. *Newsletters of the Hellenic Society of Biochemistry and Molecular Biology*. (2003) Vol. 50, p.p 582-587

E. POSTER AND ORAL PRESENTATIONS AT SCIENTIFIC CONFERENCES

The Association Between Handgrip Strength (HGS) and Predialysis Sodium (sNa) in Patients With Chronic Kidney Disease (CKD 5D).
A. Markaki, A. Spyridaki, **M. Psylinakis**, D. Lygerou, EK. Dermitzaki, K. Stylianou, P. Kyriazis, K. Perakis, G. Fragkiadakis, E. Daphnis.
XIX International Congress on Nutrition and Metabolism in Renal Disease (ICRNM 2018), Italy, Genova, 26-30/6/2018.

Sarcopenia in Patients with Stage 5 Chronic Kidney Disease (CKD): the Role of Adherence to Mediterranean Diet (MD).
A. Markaki A, Ai. Charonitaki, A. Spyridaki, **M. Psylinakis**, A. Gkioume, E. Orfanou, P. Kyriazis, K. Stylianou , D. Bacharaki.
XIX International Congress on Nutrition and Metabolism in Renal Disease (ICRNM 2018), Italy, Genova, 26-30/6/2018.

	<p>Association of nutritional status and depression in hemodialysis patients. A. Markaki, A. Charonitaki, K. Stylianou, E. Venizelou, V. Kyprianidi, <u>E. Psylinakis</u>, P. Dimitropoulakis, A. Spyridaki. <i>DIETS - EFAD VIIth Conference, "Non-Communicable Diseases - the dietitians' response to Health 2010", Garda, Italy, 8-9 November 2013.</i></p>
	<p>Adherence to Mediterranean Diet among Greek multiple sclerosis patients. A. Markaki, K. Platsa, E. Kouroumplis, A. Spyridaki, <u>E. Psylinakis</u>, V. Chatzi, G.A. Fragkiadakis. <i>EFAD VIIth Conference, "Non-Communicable Diseases - the dietitians' response to Health 2010", Garda, Italy, 8-9 November 2013.</i></p>
	<p>Increased serum Adiponectin (ADPN) levels are a marker of poor prognosis in chronic kidney disease (CKD) patients. A. Markaki, K. Stylianou, M. Venyhaki, <u>E. Psylinakis</u>, V. Chatzi, A. Spyridaki, K. Perakis, J. Kyriazis, E. Daphnis. <i>DIETS VIth Conference, "Life Long Learning for a secure nutrition future", Portoroz, Slovenia, 26-27 October 2012.</i></p>
	<p>Nutritional assessment of hemodialysis patients. A. Markaki, <u>E. Psylinakis</u>, P. Dimitropoulakis, A. Charonitaki, G.A. Fragkiadakis, A. Spyridaki. <i>DIETS Vth Conference, "Building a strong evidenced based approach to nutrition and dietetics", Barcelona, 21-22 October 2011.</i></p>
	<p>inhibition of Photosynthetic Activity In Vitro in Plant Systems in the Presence of Capsaicinoids <u>E. Psylinakis</u>, K. Loulakakis, D. Ghanotakis, Spyridaki 23rd Scientific Conference of the Hellenic Society for Horticultural Science (HSHS) (2007), October 23-26, Chania</p>
	<p>Investigation of the Herbicidal Action of Capsaicinoids <u>Speaker: Emmanuel Psylinakis</u> Symposium for the Research Teams of TEI Archimedes I & II, Heraklion, March 19-20 (2006)</p>
	<p>Application of polysaccharide deacetylases from Bacillus cereus on the enzymatic conversion of chitin to chitosan <u>Emmanuel Psylinakis</u> and Vassilis Bouriotis 1st Panhellenic Conference on Biotechnology and Food Technology (2005), Athens Chamber of Commerce and Industry (ACCI), Athens</p>
	<p>Cloning, Expression and Characterization of a Polysaccharide Deacetylase from Bacillus cereus. <u>Speaker: Emmanuel Psylinakis</u> 55th Panhellenic Conference of the Hellenic Society of Biochemistry & Molecular</p>

	Biology, Athens, November 13-15 (2003)
	Isolation and crystallization of CP47, a Photosystem II chlorophyll binding protein. Degradation of CP 47 upon dissociation from the core complex". <u>E. Psylinakis</u> , and D.F. Ghanotakis <i>13th Congress of the Federation of European Societies of Plant Physiology. (FESPP 2002) Heraklion, Crete, Greece, September 1-6,p.p 468.</i>
	Topological organization of Photosystem II proteins. D.F. Ghanotakis, <u>E. Psylinakis</u> . <i>12th international congress on photosynthesis. (2001) Brisbane Australia August 18-23. S5-025.</i>
	Investigation of the structure of spinach photosystem II reaction center complex. Tsiotis, G., <u>Psylinakis, M.</u> , Woplensinger, B., Lusting, A., Engel, A. and Ghanotakis, D. <i>Xith international congress on photosynthesis (1998). Budapest Hungary August 17-23 SY4-P111.</i>
PATENT PUBLICATION	
	Nucleic acid molecules encoding a bacterial protein having deacetylase activity, such protein,methods for producing same, and uses thereof. Bouriotis V., <u>E. Psylinakis</u> , A. Deli, B. M. Moerschbacher EUROPEAN PATENT APPLICATION: EP 1 884 567 A1 Date of publication:06.02.2008 Bulletin 2008/06