UNIVERSITY OF IOANNINA, MEDICAL SCHOOL
LABORATORY OF BIOLOGICAL CHEMISRY

CURRICULUM VITAE

KARENA-EFSTATHIOU EKATERINI

June 2011

Curriculum Vitae

Last Name:	Karena - Efstathiou
First Name:	Ekaterini
Date of Birth:	November 12, 1979
Place of Birth:	Athens, Greece
Adress:	25A Arhimandriou Str., 45333 Ioannina
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EDUCATION

2009-2011: Student (4th year) at Department of Biological Applications and Technologies, Science and Technology School, University of Ioannina, Greece.

2009-2013: Graduate fellowship from the Greek Ministry of Education, program "Heraklitos-II", starting Feb. 15, 2009.

2008: PhD student at the Laboratory of Biological Chemistry, University of Ioannina Medical School, since April 15, 2008. Title of thesis: «Structural and Functional Arrangement of Transmembrane Helices in Purine Transporters of the NAT/NSC2 Family ». Principal Investigator Stathis Frillingos, Associate Professor of Biological Chemistry, Ioannina University Medical School.

2008: **MSc in Biotechnology,** Programme of Postgraduate Studies between the Medical School and the Department of Chemistry at the University of Ioannina, Greece (grade 8.12/10).

2007: MSc thesis: «The role of intramembrane amino acid residues Arg, Asp, Glu, His, Lys in Ygfo xanthine transporter». Principal Investigator Stathis Frillingos, As. Professor of Biological Chemistry, Ioannina University Medical School. Presented on November 11, 2007 (grade 9/10).

2005: **BSc in Mathematics,** subject area Probability, Statistics and Operations, Research Section, Departement of Mathematics at the University of Ioannina, Greece (grade 6.04).

FOREIGN LANGUAGES:

1994: First Certificate in English, University of Cambridge

COMPUTER SKILLS:

2009: Cambridge International Diploma In It Skills Proficiency

2007: ECDL Core Certificate (European Computer License Syllabus Version : 4.0)

Excellent Knowledge: MS-DOS, Bioinformatics Databases (BLAST, CLUSTALW), C, C++, UNIX, FORTRAN, JMP IN Statistics and S.P.S.S., Computational Mathematics (Mathematica), Photoshop 7.0/CS.

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PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS

1. **E. Karena**, and S. Frillingos, «Role of intramembrane polar residues in the YgfO xanthine permease: H31 and N93 are crucial for affinity and specificity, D304 and E272 are irreplaceable», *J Biol Chem.* **2009** September 4; 284(36):24257-68.

2. E. Georgopoulou, G. Mermelekas, **E. Karena**, and S. Frillingos, «Purine substrate recognition by the nucleobase – ascorbate transporter signature motif in the YgfO xanthine permease: Asn-325 binds and Ala-323 senses substrate», *J Biol Chem* **2010** June 18; 285(25):19422-33.

CITATIONS to publication-1 [Karena and Frillingos, *JBC* 284, 24257-68 (2009)]

1. V. Ormazabal, F. A. Zuñiga, E. Escobar, C. Aylwin, A. Salas-Burgos, A. Godoy, A. M. Reyes, J. C. Vera, and C. I. Rivas, «Histidine residues in the Na^+-coupled ascorbic acid transporter-2 (SVCT2) are central regulators of SVCT2 function, modulating pH sensitivity, transporter kinetics, Na^+ cooperativity, conformational stability, and subcellular localization», *J. Biol. Chem.* 285, 36471-85 (**2010**).
2. J. Leung, M. Karachaliou, C. Alves, G. Diallinas, and B. Byrne, «Expression and purification of a functional uric acid–xanthine transporter (UapA)», *Protein Expression and Purification* 72,139-146 (**2010**).
3. V. Kosti, I. Papageorgiou and G. Diallinas, «Dynamic Elements at Both Cytoplasmically and Extracellularly facing Sites of the UapA Transporter Selectively Control the Accessibility of Substrates to Their Translocation Pathway», *J. Mol. Biol*., 397, 1132-43 (**2010**).

CITATIONS to publication-2 [Georgopoulou et al., *JBC* 285, 19422-33 (2010)]

4. F. Lu, S. Li, Y. Jiang, J. Jiang, H. Fan, G. Lu, D. Deng, S. Dang, X. Zhang, J. Wang, and N. Yan, «Structure and mechanism of the uracil transporter UraA», *Nature* 472, 243-6 (**2011**).

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PRESENTATIONS IN SCIENTIFIC CONFERENCES

1. K. Papakostas, **E. Karena**, and S. Frillingos, « Functional characterization of the uric-acid permease YgfU (PbuX)", 60th Meeting of Hellenic Society for Biochemistry and Molecular Biology (HSBMB), Athens, November 20 – 22, 2009. Proceedings, 152 (**2009**).

2. **E. Karena**, E. Georgopoulou, A. Kallis, and S. Frillingos, «The sequence region of transmembrane helices 8 and 9 in nucleobase-ascorbate transporter (NAT/NCS2) family», Hellenic National Initiative Mikrobiokosmos (MBK), 1st National MBK Conference, NCSR Demokritos, Aghia Paraskevi Attikis, Athens, Dec. 12-14, 2008. Proceedings, 95-97 (**2008**).

3. S. Frillingos, K. Papakostas, E. Georgopoulou, **E. Karena**, E. Vourvou, and G. Mermelekas, «Functional role and interactions of helix XII with the Nucleobase-Ascorbate Transporter (NAT) signature motif in the xanthine permease YgfO from *E. coli*», Gordon Research Conference, *Membrane transport proteins*, Lucca, Italy, July 20 – 25, poster session on "Structure of membrane transporters", moderated by G. Rudnick (**2008**).

4. E. Georgopoulou, K. Papakostas, **E. Karena**, and S. Frillingos, «Critical residues and intramolecular interactions in the xanthine permease YgfO from *Escherichia coli* as revealed from Cys-scanning analysis», 59th Panhellenic Congress of Biochemistry and Molecular Biology, Athens, Dec 7 - 9, 2007. *Hell. Biochem. Mol. Biol. Newsletter* 54, 104 (**2007**).

5. E. Georgopoulou, G. Mermelekas, **E. Karena**, P. Karatza, P. Panos, and S. Frillingos, «The role of ^{324}QN^{325} and flanking sequences of the nucleobases-ascorbate transporters (NAT) in purine:H^+ symport», 32nd FEBS Congress - *Molecular Machines*, Vienna, Austria, July 7 - 12, 2007. Abstract B4-16. *FEBS J*. 274 (suppl. 1), 121 (**2007**).

6. **E. Karena**, and S. Frillingos, «Scanning analysis of putative intramembrane polar residues in the xanthine permease YgfO of *E. coli*: essential roles of His31, Glu272, Asp304», Hellenic Society for Biological Sciences, Proceedings of the 29th Scientific Conference, Kavala, May 17-19, 2007. Proceedings, 146-147 (**2007**).