

CURRICULUM VITAE

**UNIVERSITY of IOANNINA, MEDICAL SCHOOL  
LABORATORY of BIOLOGICAL CHEMISTRY**

***CURRICULUM VITAE***

**GEORGIOS MERMELEKAS**

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## CURRICULUM VITAE

**George Mermelekas**

### *Curriculum Vitae*

#### ***Personal data***

Surname: Mermelekas

First name: George

Date of birth: March 24, 1982

Place of birth: Athens, Greece

Home address: 35 Agiou Thoma

19002, Paiania, Athens, Greece

E-mail: [gmermelekas@yahoo.com](mailto:gmermelekas@yahoo.com)

#### ***Degrees earned***

2005 BSc, Biology, School of Sciences and Technology, University of Ioannina, Ioannina, Greece. Nov. 2005

2009 PhD, Biological Chemistry, Medical School, University of Ioannina, Ioannina, Greece. Sept. 2009

#### ***Research education***

June 2010 –Feb. 2011 Science specialist at 401 General Army Hospital Athens.

Nov. 2009 – May 2010 Post-doctoral researcher University of Ioannina Medical School, Laboratory of Biological Chemistry,

2007 Visiting student, University of California Davis, Department of Biochemistry and Molecular Medicine, Davis, California. John C. Voss group. Site-directed spin labeling studies. May-July 2007.

2005-09 Main experimentalist in research program PENED, co-financed from EU-European Social Fund and the Greek Ministry of Development- GSRT. Principal Investigator, Stathis Frilingos, Laboratory of Biological Chemistry, University of Ioannina Medical School. Structure-function analysis of bacterial nucleobase-cation symporters. Overexpression-purification and Cys-scanning analysis of permease YgfO (XanQ) from *E. coli*.

2004-05 Undergraduate, Diploma thesis, BSRC Alexander Fleming, Institute of Immunology, Bari, Greece. George Kollias group. Polymorphism analysis in transgenic mouse models. Oct. 2004 – June 2005.

## CURRICULUM VITAE

### **Presentations in Scientific Conferences**

1. E Douni, E Makrinou, **G Mermelekas**, N Giannakas, and G Kollias, Sensitized ENU mutagenesis screen for genetic modifiers of reumatoid arthritis and inflammatory bowel disease, 19th International Mouse Genome Conference Strasbourg Expo-Congress Centre Strasbourg, France, *Abstract book*, 58 (2005).
2. **G. Mermelekas**, and S. Frillingos, Overexpression and purification of two members of the NAT/NCS2 transporter family, one from a mesophilic Gram-negative (*E. coli*) and one from a thermophilic Gram-positive bacterium (*Moorella thermoacetica*), 58<sup>th</sup> Hell. Society Biochem. Mol. Biol. Meeting, Patra, Greece, *Hell. Biochem. Mol. Biol. Newsletter* **53**, 148 (2006).
3. Douni E, Makrinou E, **Mermelekas G**, Giannakas N, Kollias G.. Identification of genetic modifiers using random mutagenesis in Rheumatoid Arthritis and Inflammatory Bowel Disease. 21<sup>st</sup> International Mouse Genome Conference, Kyoto Japan. Abstract No P109 p.144. (2007)
4. E. Georgopoulou, **G. Mermelekas**, E. Karena, P. Karatza, P. Panos, and S. Frillingos, The role of <sup>324</sup>QN<sup>325</sup> and flanking sequences of the nucleobases-ascorbate transporters (NAT) in purine:H<sup>+</sup> symport, 32<sup>nd</sup> FEBS Congress - *Molecular Machines*, Vienna, Austria, *FEBS J.* **274** (suppl. 1), 121 (2007).
5. E. Georgopoulou, **G. Mermelekas**, and S. Frillingos, Purine binding at the nucleobase-ascorbate transporter signature motif, 30<sup>th</sup> Conference of Hellenic Society for Biological Sciences, Thessaloniki, *Proceedings*, 76-77 (2008).
6. 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*, on *Membrane transport proteins*, Lucca, Italy, July 20 – 25, poster session on “Structure of membrane transporters”, moderated by G. Rudnick (2008).
7. **G. Mermelekas**, E. Georgopoulou, and S. Frillingos, Site-directed alkylation and the nucleobase-ascorbate transporter signature motif, 33<sup>rd</sup> FEBS Congress – *Biochemistry of cell regulation*, Athens, Greece, *FEBS J.* **275** (suppl. 1), 218 (2008). *Awarded a Bodossakis Foundation prize for poster/oral presentations.*
8. **G. Mermelekas**, and S. Frillingos, Substituted cysteine accessibility (SCAM) analysis of the topology of the xanthine permease YgfO, Hellenic National Initiative Mikrobiokosmos (MBK), 1<sup>st</sup> National MBK Conference, NCSR Demokritos, Aghia Paraskevi Attikis, Athens, *Proceedings*, 143-144 (2008).
9. **G. Mermelekas**, E. Georgopoulou and S. Frillingos, Topology and substrate binding in the NAT motif of xanthine permease YgfO (XanQ), 60<sup>th</sup> Hell. Society Biochem. Mol. Biol. Meeting, Athens, Greece, *Hell. Biochem. Mol. Biol. Newsletter* **55**, 155 (2009).
10. S. Frillingos, **G. Mermelekas**, K. Papakostas, M. Botou, E. Karena, and E. Georgopoulou, «Role of putative transmembrane helix TM8 in the nucleobase-ascorbate transporter family», Hellenic Society for Biological Sciences, Karpnissi, May 20-22, 2010, Proceedings of the 32<sup>nd</sup> Scientific Conference, 410-411 (2010).

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11. **G. Mermelekas**, E. Vourvou, and S. Frillingos, «Purification and biophysical study of xanthine permease XanQ», Hellenic Society for Biological Sciences, Edessa, May 19-21, 2011, Proceedings of the 33<sup>rd</sup> Scientific Conference, 196-197 (2011).

### Publications

1. N. D Lemuh, G. Diallinas, S. Frillingos, **G. Mermelekas**, A.D. Karagouni, and D. G. Hatzinikolaou. Isolation and partial characterization of the xanthine-uric acid transporter (UapA) of *Aspergillus nidulans*. *Prot. Exp. Purif.* **63**, 33-39 (2009).
2. E. Georgopoulou, **G. Mermelekas**, and S. Frillingos. Purine substrate recognition by the nucleobase-ascorbate transporter motif in the YgfO xanthine permease: Asn-325 binds and Ala-323 senses substrate. *J. Biol. Chem.* **285**, 19422-19433. (2010).
3. **G. Mermelekas**, E. Georgopoulou, A. Kallis, M. Botou, V. Vlantos, and S. Frillingos. Cysteine-scanning analysis of helices TM8, TM9a, TM9b and intervening loops in the YgfO xanthine permease: a carboxyl group is essential at position Asp-276. *J. Biol. Chem.* **285**, 35011-35020 (2010).