

## Curriculum vitae

(2023)

### Sotiris Amillis

Department of Biology, Section of Botany, Microbiology  
National and Kapodistrian University of Athens (NKUA)  
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### Education

- 1991 High school degree, German School of Athens (<http://www.dsathen.gr/de/>)  
1991-92 Faculty of Chemistry, Julius-Maximilian University Würzburg, Germany  
1992-98 Diploma of Biology “*Mag. rer. nat.* Biologie, Botanik, Biochemie”  
Paris-Lodron University of Salzburg, Austria (<https://www.plus.ac.at/biowissenschaften/>)  
Thesis: “Untersuchungen zur Pathogenität einheimischer *Streptomyces*-Stämme in einem dynamischen Boden-Mikrokosmos System”  
1999-04 Ph.D. (*Dr. rer. nat.*), NKUA, Department of Biology  
Thesis: “*Aspergillus nidulans* as a model system for the study of purine transporters”  
2002-03 Military Services

### Professional Experience

#### Research Interests:

Classical and molecular genetics of fungi. Structure-function relationships, regulation of expression, signalling and intracellular trafficking of transporters and membrane proteins

- 2004- Research assistant in the Fungal Genetics and Molecular Biology Unit and the Enzyme and the Microbial Biotechnology Unit, NKUA, Department of Biology, Section of Botany, Microbiology (<http://en.biol.uoa.gr/sections/section-of-botany.html>)  
2010-12 Institute of Microbial Genetics, (IMIG), Department of Applied Genetics and Cell Biology, University of Natural Resources and Life Sciences Vienna, Austria (<https://boku.ac.at/dagz/imig>)  
2014- Laboratory teaching staff, NKUA, Department of Biology, Section of Botany (<http://en.biol.uoa.gr/human-resources/laboratory-administrative-staff.html>)  
2022-23 Institute of Applied Biosciences (IAB), Department of Microbiology, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany (<https://www.iab.kit.edu/>)  
2023-24 Institute of Microbial Genetics, (IMIG), Department of Applied Genetics and Cell Biology, University of Natural Resources and Life Sciences Vienna, Austria (<https://boku.ac.at/dagz/imig>)

#### Teaching and Tutoring:

- 2004-22 Practical undergraduate courses “General Microbiology”, “Molecular and Applied Microbiology” and diploma theses (NKUA, Department of Biology)  
2006-20 Master’s course: “Molecular Biotechnology” (NKUA, Department of Biology) (<http://m-biotech.biol.uoa.gr/>)  
2014-20 Practical undergraduate courses “Genetics” (NKUA, Department of Biology), “Introduction to Botany” (NKUA, Department of Biology) and “General Botany” (NKUA, Department of Pharmacy)

### Publications

(<http://www.ncbi.nlm.nih.gov/pubmed/?term=Amillis+S>)  
(<https://www.scopus.com/authid/detail.uri?authorId=6508168101>)  
(<https://scholar.google.gr/citations?hl=el&user=ZZwvYUcAAAAJ>)  
(<https://orcid.org/0009-0001-8472-0018>)  
(<https://www.webofscience.com/wos/author/record/JAC-0660-2023>)

#### Peer-reviewed journals:

- 1 Amillis S, Koukaki M and Diallinas G. (2001). Substitution F569S converts UapA, a specific uric acid-xanthine transporter, into a broad specificity transporter for purine-related solutes. *J Mol Biol* 313: 765-774. <https://doi.org/10.1006/jmbi.2001.5087>
- 2 Cecchetto G, Amillis S, Diallinas G, Scazzocchio C and Drevet C. (2004). The AzgA purine transporter of *Aspergillus nidulans*: characterisation of a protein belonging to a new phylogenetic cluster. *J Biol Chem* 279: 3132-3141. (Evaluated by F1000) <https://doi.org/10.1074/jbc.m308826200>
- 3 Amillis S, Cecchetto G, Sophianopoulou V, Koukaki M, Scazzocchio C and Diallinas G. (2004).

- Transcriptional activation of purine transporters during the conidial isotropic growth phase of *Aspergillus nidulans*. *Mol Microbiol* 52: 205-216. <https://doi.org/10.1046/j.1365-2958.2003.03956.x>
- 4 Vlanti A, Amillis S, Koukaki M and Diallinas G. (2006). A Novel-type Substrate-selectivity Filter and ER-exit Determinants in the UapA Purine Transporter. *J Mol Biol* 31: 808-819. <https://doi.org/10.1016/j.jmb.2005.12.070>
- 5 Amillis S, Hamari Z, Roumelioti K, Scazzocchio C and Diallinas G. (2007). Regulation of expression and kinetic modeling of substrate interactions of a uracil transporter in *Aspergillus nidulans*. *Mol Membr Biol* 24: 206-214. <https://doi.org/10.1080/09687860601070806>
- 6 Goudela S, Reichard U, Amillis S and Diallinas G. (2008). Characterization and kinetics of the major purine transporters in *Aspergillus fumigatus*. *Fungal Genet Biol* 45: 459-472. <https://doi.org/10.1016/j.fgb.2007.08.001>
- 7 Papageorgiou I, Gournas C, Vlanti A, Amillis S, Pantazopoulou A and Diallinas G. (2008). Specific Interdomain Synergy in the UapA Transporter Determines Its Unique Specificity for Uric Acid among NAT Carriers. *J Mol Biol* 382: 1121-1135. (Evaluated by F1000) <https://doi.org/10.1016/j.jmb.2008.08.005>
- 8 Hamari Z, Amillis S, Drevet C, Apostolaki A, Vágvölgyi C, Diallinas G and Scazzocchio C. (2009). Convergent evolution and orphan genes in the FUR4p-like family and characterisation of a general nucleoside transporter in *Aspergillus nidulans*. *Mol Microbiol* 73: 43-57. <https://doi.org/10.1111/j.13652958.2009.06738.x>
- 9 Gournas C, Amillis S, Vlanti A and Diallinas G. (2010). Substrate-induced, function-dependent, endocytosis of the UapA purine transporter by ubiquitination. *Mol Microbiol* 75: 246-260. <https://doi.org/10.1111/j.1365-2958.2009.06997.x>
- 10 Abreu C, Sanguinetti M, Amillis S and Ramon A. (2010). UreA, the major urea/H<sup>+</sup> symporter in *Aspergillus nidulans*. *Fungal Genet Biol* 47: 1023-1033. <https://doi.org/10.1016/j.fgb.2010.07.004>
- 11 Gournas C, Oestreicher N, Amillis S, Diallinas G and Scazzocchio C. (2011). Completing the purine utilization pathway of *Aspergillus nidulans*. *Fungal Genet Biol* 48: 840-848. <https://doi.org/10.1016/j.fgb.2011.03.004>
- 12 Amillis S, Kosti V, Pantazopoulou A and Diallinas G. (2011). Mutational analysis and modeling reveal functionally critical residues in transmembrane segments 1 and 3 of the UapA transporter. *J Mol Biol* 411: 567-580. <https://doi.org/10.1016/j.jmb.2011.06.024>
- 13 Apostolaki A, Harispe L, Calcagno-Pizarelli A, Vangelatos I, Sophianopoulou V, Arst HN Jr, Peñalva MA, Amillis S and Scazzocchio C. (2012). *Aspergillus nidulans* CkiA is an essential casein kinase I required for delivery of amino acid transporters to the plasma membrane. *Mol Microbiol* 84: 530-549. <https://doi.org/10.1111/j.1365-2958.2012.08042.x>
- 14 Kryptou A, Kosti V, Amillis S, Myrianthopoulos V, Mikros E and Diallinas G. (2012). Modeling, Substrate Docking and Mutational Analysis Identify Residues essential for the function and specificity of a Eukaryotic Purine-Cytosine NCS1 Transporter. *J Biol Chem* 287: 36792-36803. <https://doi.org/10.1074/jbc.m112.400382>
- 15 Karachaliou M, Amillis S, Evangelinos M, Kokotos AC, Yalelis V and Diallinas G. (2013). The arrestin-like protein ArtA is essential for ubiquitination and endocytosis of the UapA transporter in response to both broad-range and specific signals. *Mol Microbiol* 88: 301-317. (Evaluated by F1000Prime) <https://doi.org/10.1111/mmi.12184>
- 16 Schinko T, Gallmetzer A, Amillis S and Strauss J. (2013). Pseudo-constitutivity of nitrate-responsive genes in nitrate reductase mutants. *Fungal Genet Biol* 54: 34-41. <https://doi.org/10.1016/j.fgb.2013.02.003>
- 17 Sanguinetti M, Amillis S, Pandano S, Scazzocchio C and Ramón A. (2014). Modeling and mutational analysis of *Aspergillus nidulans* UreA, a member of the subfamily of urea/H<sup>+</sup> transporters in fungi and plants. *Open Biol* 4: 140070. <https://doi.org/10.1098/rsob.140070>
- 18 Galanopoulou K, Scazzocchio C, Galinou M, Weiwei L, Borbolis F, Karachaliou M, Oestreicher N, Hatzinikolaou DG, Diallinas G and Amillis S. (2014). Purine utilization proteins in the Eurotiales: Cellular compartmentalization, phylogenetic conservation and divergence. *Fungal Genet Biol* 69: 96-108. <https://doi.org/10.1016/j.fgb.2014.06.005>
- 19 Sá-Pessoa J, Amillis S, Casal M and Diallinas G. (2015). Expression and specificity profile of the major acetate transporter AcpA in *Aspergillus nidulans*. *Fungal Genet Biol* 76: 93-103. <https://doi.org/10.1016/j.fgb.2015.02.010>
- 20 Martzoukou O, Karachaliou M, Yalelis V, Leung J, Byrne B, Amillis S and Diallinas G. (2015). Dimerization of the UapA purine transporter is critical for ER-exit, plasma membrane localization and turnover. *J Mol Biol* 427: 2679-2696. <https://doi.org/10.1016/j.jmb.2015.05.021>
- 21 Athanasopoulos A, Gournas C, Amillis S and Sophianopoulou V. (2015). Characterization of AnNce102 and its role in eisosome stability and sphingolipid biosynthesis. *Sci Rep* 5: 15200. <https://doi.org/10.1038/srep15200>
- 22 Evangelinos M, Martzoukou O, Chorozián K, Amillis S and Diallinas G. (2016). BsdA<sup>Bsd2</sup>-dependent vacuolar turnover of a misfolded version of the UapA transporter along the secretory pathway: prominent role of selective autophagy. *Mol Microbiol* 100: 893-911. <https://doi.org/10.1111/mmi.13358>
- 23 Alguet Y, Amillis S, Leung J, Lambrinidis G, Capaldi S, Scull NJ, Craven G, Iwata S, Armstrong A, Mikros E, Diallinas G, Cameron AD and Byrne B. (2016). Structure of eukaryotic purine/H<sup>+</sup> symporter UapA suggests a role for homodimerization in transport activity. *Nat Commun* 7: 11336. <https://doi.org/10.1038/ncomms11336>

- 24 Sioupouli G, Lambrinidis G, Mikros E, Amillis S and Diallinas G. (2017). Cryptic purine transporters in *Aspergillus nidulans* reveal the role of specific residues in the evolution of specificity in the NCS1 family. *Mol Microbiol* 103: 319-332. <https://doi.org/10.1111/mmi.13559>
- 25 de Vries RP<sup>#</sup>, Riley R, Wiebenga A, Aguilar-Osorio G, Amillis S, (...), Dyer PS and Grigoriev VI. (2017). Comparative genomics reveals high biological diversity and specific adaptations in the industrially and medically important fungal genus *Aspergillus*. *Genome Biol* 18: 28. <https://doi.org/10.1186/s13059-017-1151-0>
- 26 Martzoukou O, Amillis S, Zervakou A, Christoforidis S and Diallinas G. (2017). The AP-2 complex has a specialized clathrin-independent role in apical endocytosis and polar growth in fungi. *Elife* 6: e20083. <https://doi.org/10.7554/elife.20083>
- 27 Papadaki GF, Amillis S and Diallinas G. (2017). Substrate specificity of the FurE transporter is determined by cytoplasmic terminal domain interactions. *Genetics* 207: 1387-1400. <https://doi.org/10.1534/genetics.117.300327>
- 28 Pyle E, Kalli A, Amillis S, Hall Z, Hanyaloglu A, Diallinas G, Byrne B and Politis A. (2018). Structural lipids enable the formation of functional oligomers of the eukaryotic purine symporter UapA. *Cell Chem Biol* 25: 840-848.e4. <https://doi.org/10.1016/j.chembiol.2018.03.011>
- 29 Martzoukou O, Diallinas G and Amillis S. (2018). Secretory vesicle polar sorting, endosome recycling and cytoskeleton organization require the AP-1 complex in *Aspergillus nidulans*. *Genetics* 209: 1121-1138. <https://doi.org/10.1534/genetics.118.301240>
- 30 Dimou S, Kourkoulou A, Amillis S, Percudani R and Diallinas G. (2019). The peroxisomal SspA protein is redundant for purine utilization but essential for peroxisome localization in septal pores in *Aspergillus nidulans*. *Fungal Genet Biol* 132: 103259. <https://doi.org/10.1016/j.fgb.2019.103259>
- 31 Sanguinetti M, Iriarte A, Amillis S, Marín M, Musto H and Ramón A. (2019). A pair of nonoptimal codons are necessary for the correct biosynthesis of the *Aspergillus nidulans* urea transporter, UreA. *R Soc Open Sci* 6: 190773. <https://doi.org/10.1098/rsos.190773>
- 32 Dimou S, Martzoukou O, Dionysopoulou M, Bouris V, Amillis S and Diallinas G. (2020). Translocation of nutrient transporters to cell membrane via Golgi bypass in *Aspergillus nidulans*. *EMBO Rep* 21: e49929. <https://doi.org/10.15252/embr.201949929>
- 33 Kalampokis I, Erban A, Amillis S, Diallinas G, Kopka J and Aliferis KA. (2020). Untargeted metabolomics as a hypothesis-generation tool in plant protection product discovery: Highlighting the potential of trehalose and glycerol metabolism of fungal conidiospores as novel targets. *Metabolomics* 16: 79. <https://doi.org/10.1007/s11306-020-01699-7>  
(featured article on journal cover; <https://link.springer.com/journal/11306/volumes-and-issues/16-8>)
- 34 Martzoukou O, Glekas P, Avgeris M, Mamma D, Scorilas A, Kekos D, Amillis S and Hatzinikolaou DG. (2022). The interplay between sulfur metabolism and desulfurization activity in *Rhodococcus qingshengii* IGTS8: Insights into a regulatory role of the reverse transsulfuration pathway. *mBio* 13: e0075422. <https://doi.org/10.1128/mbio.00754-22>
- 35 Sanguinetti M, Santos LH, Dourron J, Alamón C, Idiarte J, Amillis S, Pantano S and Ramón A. (2022). Substrate recognition properties from an intermediate structural state of the UreA transporter. *Int J Mol Sci* 23: 16039. <https://doi.org/10.3390/ijms232416039>
- 36 Martzoukou O, Amillis S, Glekas P, Breyanni D, Avgeris M, Scorilas A, Kekos D, Pachnos M, Mavridis G, Mamma D and Hatzinikolaou DG<sup>#</sup>. (2023). Advancing desulfurization in the model biocatalyst *Rhodococcus qingshengii* IGTS8 via an in locus combinatorial approach. *Appl Environ Microbiol* 89: e0197022 <https://doi.org/10.1128/aem.01970-22>

#### Congresses-Workshops:

International: 49

National: 30

#### Editorial boards:

*Journal of Fungi* (<https://www.mdpi.com/journal/jof/editors>)

*Scientific Reports* (<https://www.nature.com/srep/about/editors#microbiology>)