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CURRICULUM VITAE
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NAME	Amalia-Sofia Afendra
ADDRESS	University of Ioannina, Department of Biological Applications and Technologies, Ioannina 451 10 Tel. + 30 2651097494, 7393, Email: aafendra@uoi.gr
PRESENT POSITION	Assistant Professor in Microbial Genetics
EDUCATION	▪ BA Chemistry, University of Ioannina, 1985 ▪ PhD, University of Ioannina, 1992
POSITIONS	▪ Post-graduate scholar, University of Ioannina, 1988-1992 ▪ Post-doctoral Fellow, University of California, Berkeley, 1993-94 ▪ Post-doctoral Fellow, University of Ioannina, 1995-2000 ▪ Lecturer PD 407/80, University of Ioannina, 2000-2004 ▪ Lecturer, University of Ioannina, 2004-2012 ▪ Assistant Professor, University of Ioannina, 2012-today (establ. 7/2016).
RESEARCH INTERESTS/OBJECTS	▪ Genetic improvement on microorganisms of biotechnological interest ▪ Molecular microbial technology ▪ Detection and characterization of native plasmids ▪ Horizontal gene transfer
PARTICIPATION IN RESEARCH PROGRAMS	▪ EC, DGXII, BEP 1984 (GBI-3-098-GR) ▪ EC, DGXII, BAP 1986 (BAP-0153-GR) ▪ STRIDE-HELLAS 33 ▪ EC, DGXI-E-2-Biotecnology, 1995, B4-3040 ▪ EPET II, 1995 ▪ EC, BIOTECH, 1996 (BIO-CT96-0488) ▪ EC, DGXI-E-2-Biotechnology, 1997, 96/809/3040 ▪ EPET II, 1998 ▪ PYTHAGORAS I, 2004 ▪ PYTHAGORAS II, 2005 (project leader) ▪ GGET, GREECE-SPAIN, 2005 ▪ SYNERGASIA (COOPERATION), 2012 ▪ COOPERATIONAL REGIONAL PROGRAMME “EPIRUS” 2014-2020 ▪ ESPA 2014-2020 “FOOD INNOVATION RI”
PARTICIPATION IN EUROPEAN TEACHING PROGECTS	Plasmid stability - horizontal gene transfer - environmental implications (Workshop CEC Biotechnology R & D Programmes), 1-12/7/1996, University of Ioannina
TRANSLATIONS	Contribution in Greek translation of: ▪ iGenetics: a Mendelian approach (Russell P.J.) ch. 9, 11,14, 16 & 19. ▪ Introduction to Genetic Analysis (Griffiths , Wessler, Carroll, Doebley) ch. 2. ▪ Concepts of Genetics (Klug, Cummings, Spencer, Palladino) ch. 11.

	iGenetics: a Mendelian approach (P.J. Russell) Contribution in chapters 9, 11,14, 16, and 19.
MEMBER OF SCIENTIFIC ASSOCIATIONS - SOCIETIES	▪ Association of Greek Chemists ▪ Hellenic Society of Biochemistry and Molecular Biology ▪ Scientific Society Mikrobiokosmos
ORGANIZATION OF CONFERENCES	▪ 4th Panhellenic Conference of the Scientific Society Mikrobiokosmos (2011, member of the organizing committee). ▪ 67th Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB) (2016, member of the organizing committee).

PUBLICATIONS

1. Afendra A.S. & Drainas C. (1987): Expression and stability of a recombinant plasmid in *Zymomonas mobilis* and *Escherichia coli*. Journal of General Microbiology 133: 127-134.
2. Arvanitis N., Afendra A.S. & Drainas C. (1995): *Zymomonas mobilis* ATCC 10988 plasmid pZMO3 expresses mobilisation functions in *Escherichia coli* JM83 and RR1. Biotechnology Letters 17: 681-686.
3. Panopoulos N.J., Hatziloukas E. & Afendra A.S. (1996): Transgenic crop resistance to bacteria. Field Crops Research 45: 85-98
4. Varsaki A., Afendra A.S., Vartholomatos G., Tegos G. & Drainas C. (1998). Production of ice nuclei from two recombinant *Zymomonas mobilis* strains employing the *inaZ* gene of *Pseudomonas syringae*. Biotechnology Letters 20: 647-651.
5. Afendra A.S., Vartholomatos G., Arvanitis N. & Drainas C. (1999). Characterization of the mobilization region of the *Zymomonas mobilis* ATCC10988 plasmid pZMO3. Plasmid 41: 73-77.
6. Arvanitis N., Pappas K.-M., Kolios G., Afendra A.S., Typas M.A. & Drainas C. (2000). Characterization and replication properties of the *Zymomonas mobilis* ATCC10988 plasmids pZMO1 and pZMO2. Plasmid 44, 127-137.
7. Douka E., Christogianni A., Koukkou A.I., Afendra A.S. & Drainas, C. (2001). Use of a green fluorescent protein gene as a reporter in *Zymomonas mobilis* and *Halomonas elongata*. FEMS Microbiology Letters 201: 221-227.
8. Afendra A.S.,Yannaki E.E., Palaiomylitou M.A., Kyriakidis D.A. & Drainas C. (2002). Co-production of ice nuclei and xanthan gum by transformed *Xanthomonas campestris* grown in sugar beet molasses. Biotechnology Letters 24: 579-583.
9. Varsaki A., Lucas M, Afendra A.S., Drainas C. & de la Cruz F. (2003). Genetic and biochemical characterization of MbeA, the relaxase involved in plasmid ColE1 conjugative mobilization. Molecular Microbiology 48: 481-493.
10. Konsoula Z., Liakopoulou-Kyriakides M., Perysinakis A., Chira P., Afendra A., Drainas C. and Kyriakidis D.A. (2008) Heterologous Expression of a Hyperthermophilic *α*-Amylase in Xanthan Gum Producing *Xanthomonas campestris* Cells. Applied Biochemistry & Biotechnology 149: 99-108
11. Konidaris K.F, Giouli M., Raptopoulou C.P., Psycharis V., Verginadis I.I., Vasiliadis A., Afendra A.S., Karkabounas S., Manessi-Zoupa E., Stamatatos T.C. (2013) Employment of pyridyl oximes and dioximes in zinc(II) chemistry: Synthesis, structural and spectroscopic characterization, and biological evaluation.

Inorganica Chimica Acta 396: 49–59.

12. Stergiou P.-Y., Foukis A., Filippou M., Koukouritaki M., Parapouli M., Theodorou L.G., Hatziloukas E., Afendra A., Pandey A., Papamichael E.M. (2013) Advances in lipase-catalyzed esterification reactions. Biotechnol. Advances 31: 1846–1859.
13. Stamatopoulou V., Toumpeki C., Vourekas A, Bikou M., Tsitlaidou M., Tzakos A., Afendra A., Drainas C. and Drainas D. (2014) On the Role of the Appended P19 Element in Type A RNAs of Bacterial RNase P. Biochemistry 53(11): 1810-7.
14. Foukis A., Stergiou P.Y., Filippou M., Koukouritaki M., Parapouli M., Theodorou L.G., Hatziloukas E., Afendra A., Pandey A., Papamichael E.M. (2014) Kinetic constraints and features imposed by the immobilization of enzymes onto solid matrices: a key to advanced biotransformations. Indian J Exp Biol. 52(11): 1045-51.
15. Parapouli M., Foukis A., Stergiou P.Y., Koukouritaki M., Magklaras P., Gkini O., Papamichael E.M., Afendra A.S., Hatziloukas E. (2018). Molecular, biochemical and kinetic analysis of a novel, thermostable lipase (LipSm) from *Stenotrophomonas maltophilia* Psi-1, the first member of a new bacterial lipase family (XVIII). J Biol Res (Thessalon). 25: 4.
16. Parapouli M., Vasileiadis A., Afendra A.S., Hatziloukas E. (2020). *Saccharomyces cerevisiae* and its industrial applications. AIMS Microbiol. 6(1): 1–31.

CHAPTERS IN BOOK SERIES

1. Afendra A.S., Vargas C., Nieto J.J. & Drainas C. (2004). *Gene transfer and expression of recombinant proteins in moderately halophilic bacteria*. In: Methods in Molecular Biology, Recombinant Gene Expression: Reviews and Protocols, 2nd Ed. (Balbas & Lorence Eds), Vol. 267, Chapter 14, Humana Press Inc., Totowa, NJ, pp. 209-223.
2. Afendra A.S., Parapouli M. and Constantin Drainas C. (2011). Catabolic Plasmids and Mobile Genetic Elements Involved in The Degradation of Non-Metal Xenobiotic Compounds. In: Microbial Bioremediation of Non-metals: Current Research (Koukkou A.-I., Ed), Chapter 9, Caister Academic Press, Norfolk, UK, pp. 197-216.

PRESENTATIONS IN INTERNATIONAL CONGRESSES

1. Afendra A.S. and Drainas C.(1986). A new shuttle cloning vector expressing in *Zymomonas mobilis* and *Escherichia coli*. 5th International Symposium on the Genetics of Industrial Microorganisms, Split, Yugoslavia, Book of Abstracts, p.25.
2. Afendra A.S. and Drainas C. (1989). Plasmid DNA uptake in the ethanol producing bacterium *Zymomonas mobilis*. 19th FEBS Meeting, Rome, Italy, Book of Abstracts, p.FR476.
3. Afendra A.S., Scordaki A. and Drainas C. (1990). Structural instability of a recombinant plasmid in *Zymomonas mobilis*. 20th FEBS Meeting, Budapest, Hungary, Book of Abstracts p.347, P-Th 604.
4. Afendra A.S., Vartholomatos G., Arvanitis N., Scordaki A. and Drainas C. (1994). Integration of recombinant plasmids in the *Zymomonas mobilis* chromosome. Balkan Biochemical and Biophysical Days, Varna, Bulgaria, Book of Abstracts p.I15.
5. Arvanitis N., Afendra A.S., Vartholomatos G. and Drainas C. (1996). The *Zymomonas mobilis* cryptic plasmid pZMO3 expresses mobilization functions in

Escherichia coli. 5th International Symposium on Bacterial Genetics and Ecology (BAGECO-5), Nafplion, Greece, Book of Abstracts p.31.

6. Afendra A.S., Vartholomatos G., Varsaki A., Tegos G., and Drainas C. (1997). A new high expression vector for the production of ice nuclei from *Zymomonas mobilis* CP4 strains. Balkan Biochemical and Biophysical Days, Thessaloniki, Greece, Book of Abstracts p.106 (No 318).
7. Afendra A.S., Vartholomatos G., Arvanitis N. and Drainas C. (1997). Identification of the mobilization function of the *Zymomonas mobilis* ATCC10988 cryptic plasmid pZMO3. Third Workshop of Molecular Biology and Ecology of Plasmid Mediated Gene Transfer, Cuenca, Spain, Book of Abstracts p.37-38.
8. Arvanitis N., Pappas K.-M., Kolios G., Afendra A.S., Typas, M.A. and Drainas C. (1999). Nucleotide sequence analysis of the *Zymomonas mobilis* ATCC10988 plasmids pZMO1 and pZMO2. 6th International Symposium on Bacterial Genetics and Ecology (BAGECO-6), Florence, Italy, Book of Abstracts p.31.
9. Afendra A.S., Douka E. and Drainas C. (2000). Construction of a mobilizable recombinant vector for *Zymomonas* inter- and intra-species conjugation. Second symposium of the EU-concerted action on "Mobile genetic elements" contribution to bacterial adaptability and diversity (MECBAD), Praha, Czech Republic, Book of Abstracts p.118.
10. Varsaki A., Afendra A.S., Drainas C. and de la Cruz F. (2001). Biochemical characterization of MbeA: the relaxase involved in ColE1 mobilization. Third symposium of the EU-concerted action on «Mobile genetic elements' contribution to bacterial adaptability and diversity» (MECBAD), Berlin, Germany, Book of Abstracts p.80.
11. Perysinakis A., Chira P., Afendra A.S. and Drainas C. (2004). Use of the plasmid cloning vector pcpp30 for the heterologous expression of a hyperthermophilic α-amylase gene in *Xanthomonas campestris*.
12. Afendra A.S., Andreou L.V., Patsoura M., Perysinakis A. and Drainas C. (2006). Amplification, expression and characterization of corynebacteria trehalose biosynthetic genes. 10th International Symposium on the Genetics of Industrial Microorganisms, Prague, Czech Republic, Book of Abstracts, p.92, P139.
13. Kollia K. and Afendra A.S. (2007). Construction of suitable cloning vectors and introduction of corynebacteria trehalose biosynthetic genes in *Xanthomonas campestris*. II International Conference on Environmental, Industrial and Applied Microbiology, Seville, Spain, Book of Abstracts, p. 388.
14. Afendra A.S., Patsoura M., Perysinakis A. and Drainas C. (2007). Overexpression of *Brevibacterium lactofermentum* trehalose biosynthetic genes otsA and otsB for the isolation and purification of TPP and TPS enzymes. II International Conference on Environmental, Industrial and Applied Microbiology, Seville, Spain, Book of Abstracts, p. 426.
15. Tsitlaidou M., Vourekas A., Kalavrizioti D., Stamatopoulou V., Afendra A.S., Drainas C. and Drainas D. (2008). Studies on ribonuclease P (RNase P) from the ethanologenic bacterium *Zymomonas mobilis.* 33th FEBS Congress, Athens, Greece, Book of Abstracts, p. 156, PP2E-3.
16. Haidou E., Reina-Bueno M., Iglesias-Guerra F., Nieto J.J., Vargas C., Drainas C. and Afendra A.S. (2008). Studies on the recombinant expression of the ectoine

pathway in Zymomonas mobilis. 33th FEBS Congress, Athens, Greece, Book of Abstracts, p. 285, PP5E-1.

17. Stergiou P-Y., Foukis A., Filippou M., Koukouritaki M., Parapouli M., Theodorou L. G, Hatziloukas E., Afendra A., Pandey A. and Papamichael E. M. (2013). Effective concepts in Lipase-Catalyzed Esterification Reactions. International Conference on Health, Environment and Industrial Biotechnology (BioSangam) Allahabad, Uttar Pradesh, India.
18. Foukis A., Stergiou P-Y., Filippou M., Koukouritaki M., Parapouli M., Theodorou L.G, Hatziloukas E., Afendra A., Pandey A., and Papamichael E.M. (2013). The nature of pH-value in multiphasic reaction media: its influence in enzyme nanotechnology. International Conference on Environment, Health and Industrial Biotechnology, Allahabad, Uttar Pradesh, India.
19. Foukis A., Stergiou P-Y., Filippou M., Koukouritaki M., Parapouli M., Theodorou L. G, Hatziloukas E., Afendra A., Pandey A. and Papamichael E. M. (2013). Kinetic constraints and features imposed by the immobilization of enzymes onto solid matrices: a key to advanced biotransformations. International Conference on Advances in Biotechnology and Bioinoformatics, & X Convention of the BRSI, Pune, India.
20. Parapouli M., Koukouritaki M., Foukis A., Stergiou P-Y., Karabika E., Papamichael E.M., Afendra A. and Hatziloukas E. (2014). Partial characterization of bacterial strains possessing lipase activity isolated from waste treatment facilities of Volos and Psittaleia (Greece). 10th European Symposium on Biochemical Engineering Sciences and 6th International Forum on Industrial Bioprocesses in collaboration with ACS, Lille, France.
21. Karabika E., Filippou M, Foukis A., Stergiou P-Y., Noutsopoulos D., Parapouli M., Afendra A., Hatziloukas E. and Papamichael E.M. (2014). Immobilization of grapevine indigenous strains in cellulose nano-tubes, for the production of high quality wines. 10th European Symposium on Biochemical Engineering Sciences and 6th International Forum on Industrial Bioprocesses in collaboration with ACS, Lille, France.
22. Parapouli M., Foukis A., Stergiou P.Y., Koukouritaki M., Karabika E., Papamichael E.M., Afendra A.S., Hatziloukas E. (2015). Cloning and overexpression of a new *lip* gene from *Stenotrophomonas maltophilia* Psi-1 - purification and partial characterization of the recombinant lipase. FEMS 6th Congress of European Microbiologists, Maastricht, The Netherlands.
23. Filippou M., Karabika E., Troianou E., Parapouli M., Stergiou P-Y., Foukis A., Noutsopoulos D., Afendra A., Papamichael E.M., Hatziloukas E. (2015). Comparative study of fermentation processes by free and immobilized grapevine indigenous strains for the production of high quality wines. FEMS 6th Congress of European Microbiologists, Maastricht, The Netherlands.