

## EFSTATHIOS A. KATSIFAS

### I. PERSONAL DATA

First Name: .....Efstathios

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Date of Birth: .....August 19, 1967

Family Status: .....Married, two children

Languages spoken: .....English (Excellent),

### Education:

1991 BSc Biology, University of Athens, specialising in Microbiology of cyanobacteria.

1999 PhD University of Athens “Effect of several factors on the survival and growth of streptomycetes in soil”.

**Workshops:** Participation in 2 workshops [ETC-course on introduction of genetically modified organisms into the environment: Biosafety aspects, Wageningen, The Netherlands. (1991 and 1992)]

### Professional experience:

2000-today: Research Assistant in the Laboratory of Microbiology, Faculty of Biology, National and Kapodistrian University of Athens

2007-2008: Lecturer of Microbiology, Faculty of Biology, National and Kapodistrian University of Athens.

### Scientific publication in international journals and books:

1. Vionis A.P., Katsifas E.A. and Karagouni A.D. (1998) Survival, metabolic activity and conjugative interactions of indigenous and introduced streptomycete strains in soil microcosms. *Antonie van Leeuwenhoek*, 73:103-115.
2. Katsifas E.A., Giannoutsou E.P. and Karagouni A.D. (1999) Diversity of streptomycetes species among specific Greek terrestrial ecosystems. *Letters in Applied Microbiology*, 29:48-51.
3. Katsifas E.A., Koraki T.G. and Karagouni A.D. (2000) Determination of metabolic activity of streptomycetes in soil microcosms. *Journal of Applied Microbiology*, 89:178-184.
4. Katsifas E.A., Giannoutsou E.P., Lambraki M., Barla M. and Karagouni A.D. (2004) Chromium recycling of tannery waste through microbial fermentation. *Journal of Industrial Microbial Biotechnology*, 31:57-62.
5. Hatzinikolaou D.G., Katsifas E.A., Mamma D., Karagouni A.D., Christakopoulos P. and Kekos D. (2005) Modeling of the simultaneous hydrolysis-ultrafiltration of

- they permeate by a thermostable  $\beta$ -galactosidase from *Aspergillus niger*. Journal of Biochemical Engineering, 24:161-172.
6. Baur S., Niehaus J., Karagouni A.D., Katsifas E.A., Chalkou K., Meintanis C., Jones A.L., Goodfellow M., Ward A.C., Beil W., Schneider K., Süssmuth R.D. and Fiedler H.P. (2006) Fluostatins C~E, novel members of the fluostatin family produced by *Streptomyces* strain Acta 1383. Journal of Antibiotics, 59(5):293-297.
  7. Meintanis C., Chalkou K.I., Kormas K.A., Lympelopoulou D.S., Katsifas E.A., Hatzinikolaou D. and Karagouni A.D. (2008) Application of *rpoB* sequence similarity analysis, REP-PCR and BOX-PCR for the differentiation of species within the genus *Geobacillus*. Letters in Applied Microbiology, 46:395-401.
  8. Paululat T., Katsifas E.A., Karagouni A.D. and Fiedler H.P. (2008) Grecoketides A and B, new naphthoquinones from *Streptomyces* sp. Acta 1362. European Journal of Organic Chemistry, 5283-5288.
  9. Arvanitis N., Katsifas E.A., Chalkou K.I., Meintanis C. and Karagouni A.D. (2008) A refinery sludge deposition site: presence of *nahH* and *alkJ* genes and crude oil biodegradation ability of bacteria isolates. Biotechnology Letters, 30:2105-2110.
  10. Meintanis C., Chalkou K.I., Kormas K.Ar., Lympelopoulou D.S. Katsifas E.A. and Karagouni A.D. (2009). The use of *trpB* gene in resolving phylogenetic diversity within the group of *Streptomyces*. Current Trends in Microbiology, 5:37-46.
  11. Savvides A.L., Andriopoulos C.P., Kormas K.Ar., Hatzinikolaou D.G., Katsifas E.A. and Karagouni A.D. (2011), Selective isolation of indigenous *Pseudomonas syringae* strains with ice nucleation activity properties from a ski resort, Journal of Biological Research, 15:67-73.
  12. Giannoutsou E. P., Katsifas E. A., Geli A. and Karagouni A. D. (2011) Protein increase and lysine production by a *Paecilomyces variotii* strain grown on two-phase olive mill waste. World Journal of Microbiology and Biotechnology, 1-8.

#### **Presentations in international conferences:**

1. Karagouni A.D., Vionis A.P., Katsifas E.A, Herron P., Akkermans A.D.L., Toth I.K. and Wellington E.M.H. (1992) The effect of neomycin selection in soil microcosms. 1<sup>st</sup> European BRIDGE conference, Wageningen, The Netherlands.
2. Karagouni A.D, Katsifas E.A, Vionis A.P , Herron P., Akkermans A.D.L., Toth and Wellington E.M.H. (1993) Design of soil microcosms for studying the effects of antibiotic addition to soil and subsequent selective effects on resistance genes The Final Sectorial Meeting on Biosafety and First Sectorial Meeting in Microbial Ecology, Granada, Spain.
3. Katsifas E.A., Vionis A.P, Savvides A.L., Koraki D.G. and Karagouni A.D. (1993) Design of soil microcosms for studying the effects of the antibiotic thiostrepton addition to soil and subsequent selective effects on resistance genes. 4<sup>th</sup> International Symposium on Bacterial Genetics and Ecology (BAGECO), Wageningen, The Netherlands.
4. Katsifas E.A, Vionis A.P and Karagouni A.D. (1994) Factors affecting microbial biomass and enzyme activities of *Streptomyces* in soil microcosm system. 10<sup>th</sup> International Symposium on Biology of Actinomycetes, Moscow, Russia.
5. Katsifas E.A., Koraki T.G. and Karagouni A.D. (1995) The distribution of naturally occurring *Streptomyces* and their dependence on soil type. International

Symposium on the Exploration of Microbial Diversity . The Ecological Basis and Biotechnological Utility, Goslar, Germany.

6. Katsifas E.A., Savvides A. and Karagouni A.D. (1995) The effect of soil type and other environmental parameters on exo/endo-enzyme activity of indigenous *Streptomyces*. International Symposium on the Exploration of Microbial Diversity . The Ecological Basis and Biotechnological Utility, Goslar, Germany.
7. Katsifas E., Vionis A. and Karagouni A.D. (1996) Distribution of streptomycetes in two different Mediterranean soils and ecophysiological studies on selected indigenous isolates in soil microcosms. 5<sup>th</sup> International Symposium on Bacterial Genetics and Ecology (BAGECO), Nafplion, Greece.
8. Giannoutsou E.P., Katsifas E.A. and Karagouni A.D. (1998) Diversity of *Streptomyces* species among specific terrestrial ecosystems. 8<sup>th</sup> International Symposium of Microbial Ecology (ISME 8), Halifax, Nova Scotia, Canada.
9. Katsifas E. A., Koraki T. and Karagouni A.D. (1999) Determination of metabolic activity of streptomycetes in soil microcosms. Enzymes in the environment: Activity, Ecology & Applications, Granada, Spain.
10. Katsifas E. A., Koraki T. and Karagouni A.D. (1999) Distribution, ecophysiology and plasmid pool in natural streptomycete populations. 6<sup>th</sup> International Symposium on Bacterial Genetics and Ecology, Florence, Italy.
11. Katsifas E.A., Giannoutsou E.P and Karagouni A.D. (2001) Diversity of streptomycetes strains, producers of secondary metabolites and antibiotics, among specific Greek terrestrial ecosystems European Culture Collection Organization Meeting, University of Heraklion, Heraklion, Greece.
12. Nikolakopoulou T., Katsifas E.A. and Karagouni A.D. (2001) Detection of oxytetracycline resistance genes in actinomycete isolates from different environmental sites. 12<sup>th</sup> International Symposium on the Biology of Actinomycetes, Vancouver, Canada.
13. Karagouni A.D., Katsifas E.A., Savvides A., Koraki T., Giannoutsou E., Nikolakopoulou T., Chalkou K. and Meintanis C. (2003) The activities of Streptomycetes in Mediterranean regions. 13<sup>th</sup> International symposium on the Biology of Actinomycetes. Melbourne, Australia.
14. Niehaus J.U, Baur S., Bayraktar M., Hentsel P., Bister B., Sussmuth R.D., Katsifas E.A., Giannoutsou E.P., Karagouni A.D., Payne G., Goodfellow M. and Fiedler H-P. (2003) New Secondary Metabolites from *Streptomyces exfoliatus*, 13<sup>th</sup> International Symposium on the Biology of Actinomycetes (ISBA), Melbourne, Australia.
15. Kanini G.S., Delatola E., Katsifas E.A., Hatzinikolaou D.G. and Karagouni A.D. (2004) Isolation of *Rhizoctonia solani* antagonistic streptomycetes from diverse greek habitats: Potential use as biocontrol agents, 10<sup>th</sup> International Symposium on Microbial Ecology (ISME), Cancun, Mexico.
16. Meintanis C.K., Chalkou K.I., Lympelopoulou D.S., Redinioti A.A., Straitouris A.I., Nikolakopoulou T.L., Katsifas E.A. and Karagouni A.D. (2004) The use of *trpB* housekeeping gene as a biodiversity marker for actinobacteria community analysis, 10<sup>th</sup> International Symposium on Microbial Ecology (ISME), Cancun, Mexico.
17. Kanini G.S., Katsifas E.A. and Karagouni A.D. (2005) Potential use of the indigenous strains *Streptomyces exfoliatus* REA17 and *Streptomyces fulvisimus* GRE24/1A AS biocontrol agents against the phytopathogenic fungi *Rhizoctonia solani*, 8<sup>th</sup> Symposium on Bacterial Genetics and Ecology (BAGECO), Lyon, France.

18. Kanini G.S., Katsifas E.A., Roussis V., Hatzinikolaou D.G. and Karagouni A.D. (2006) *Streptomyces* isolates against *Rhizoctonia solani* and study of the characteristics of the chemical nature of the bioactive substances, 11<sup>th</sup> International Symposium on Microbial Ecology (ISME-11), Vienna, Austria.
19. Lympelopoulou D.S., Katsifas E.A., Koraki T.G., Savvides A., Giannoutsou E., Nikolakopoulou T.L., Meintanis C., Chalkou K., Kanini G.S., Delatola E., Fiedler H.P. and Karagouni A.D. (2007) Metabolically and genetically active streptomycetes from important Greek habitats. 14<sup>th</sup> International Symposium on the Biology of *Actinomyces* (ISBA-14), p. 188, Newcastle, UK.
20. Gotzis S., Kanini G., Katsifas E.A. and Karagouni A.D. (2007) Biocontrol of common phytopathogenic fungi from indigenous *Streptomyces* of the Greek territory. 14<sup>th</sup> International Symposium on the Biology of *Actinomyces* (ISBA-14), p. 199, Newcastle, UK.
21. Kanini G., Gotzis S., Katsifas E.A., Karagouni A.D. and Lympelopoulou D.S. (2008) Antifungal activity against *Fusarium oxysporum* by *Streptomyces longisporoflavus* and *Streptomyces lavendulae* isolates from Greek soil. 12<sup>th</sup> International Symposium on Microbial Ecology (ISME-12), Cairns, Australia.
22. Kanini G.A., Hatzinikolaou D.G., Savvides A., Katsifas E.A. and Karagouni A.D. (2008) Antagonistic activity of Greek indigenous streptomycetes for the control of bean damping-off caused by *Rhizoctonia solani*. 4<sup>th</sup> International Symposium on *Rhizoctonia*, Berlin, Germany.
23. Kanini G.S., Katsifas E.A., Hatzinikolaou D.G. and Karagouni A.D. (2009) Isolation and characterization of antifungal metabolites produced from Greek indigenous streptomycetes. 10<sup>th</sup> Symposium on Bacterial Genetics and Ecology (BAGECO-10), Uppsala, Sweden.
24. Kanini G.S., Katsifas E.A., Hatzinikolaou D.G. and Karagouni A.D. (2010) Biochemical Characterization of antifungal metabolites produced from Greek indigenous streptomycetes, examined as biocontrol agents. 11<sup>th</sup> meeting of the IOBC/WPRS Working Group "Biological control of fungal and bacterial plant pathogens", Graz, Austria.
25. Pournara A., Lympelopoulou D.S., Katsifas E.A. and Karagouni A.D. (2010) Annual variation of the pathogens *Salmonella* sp. and *Pseudomonas aeruginosa* in Laganas Bay. XXXIII International Congress on Microbial Ecology and Disease (SOMED), Greece.
26. Pournara A., Lympelopoulou D.S., Katsifas E.A. and Karagouni A.D. (2010) Effects of rain on costal bathing waters in Laganas Bay. XXXIII International Congress on Microbial Ecology and Disease (SOMED), Greece.
27. Tsakiroglou P., Kanini G., Savvides A., Papakostantinou E., Katsifas E.A. and Karagouni A.D. (2010) Effect of antimicrobial agents on indigenous population of the chemolithotrophic bacteria in marbles. XXXIII International Congress on Microbial Ecology and Disease (SOMED), Greece.
28. Malliarakis G.E., Ioannou E., Katsifas E.A., Vagias C., Roussis V. and Karagouni A.D. (2010) Isolation of endophytic microorganisms from the red alga *Laurencia gadulifera*. XXXIII International Congress on Microbial Ecology and Disease (SOMED), Greece.
29. Prifti E.N.A., Kanini G., Katsifas E.A. and Karagouni A.D. (2010) Assessment of the microbial biodiversity at the nests of the sea turtle *Caretta caretta*. XXXIII International Congress on Microbial Ecology and Disease (SOMED), Greece.
30. Nikolitsa A., Tagaroulia, Efstathios A., Katsifas, Dimitris G., Hatzinikolaou, and Amalia D. Karagouni (2011) Isolation and characterization of oenological

- bacterial strains as promising malolactic starter cultures. 11<sup>th</sup> Symposium on Bacterial Genetics and Ecology (BAGECO-11), Corfu, Greece.
31. Maria Bourbouli, Efstathios A. Katsifas , V. Roussis , E Papanthassiou, Amalia D. Karagouni (2011) Bacterial Diversity of Kolumbo submarine volcano. 11<sup>th</sup> Symposium on Bacterial Genetics and Ecology (BAGECO-11), Corfu, Greece.
  32. Paraschas G., Katsifas E., Karagouni A.D. (2011) Evaluating short-term changes in microbial community at recreational waters and sand, caused by stormwater runoff in Athens, Greece. 11<sup>th</sup> Symposium on Bacterial Genetics and Ecology (BAGECO-11), Corfu, Greece.

### **Research projects:**

Dr Katsifas has participated as an experienced researcher in 12 research projects funded by EU or National Sources:

1. EEC, BRIDGE BIOT-CT91 “The effects of selection on gene stability and transfer in population of bacteria in soil”, 70/3/0912, (1991-1993).
2. STRIDE HELLAS 91 “Establishment and Development of a National Laboratory Network for the Applied Research and Production of Bioactive Peptides”, 70/3/1003, (1992-1994).
3. STRIDE, Ministry of Economics Additional funding of the previous program with the amount of 16140 € by the Ministry of Economics (1993-1994).
4. NATO Science for stability program, GR-Carob project “Innovative technology for the economic and ecological valorization of carob beans”, 70/3/2338, (1994-1998).
5. Collaboration with Novo Nordisk A/S “Isolation of streptomycete strains from selected ecosystems”, (April-June 1995).
6. ETERPS, Hellenic Ministry for Environment, “Chromium recycling of tannery waste through microbial fermentation”, 70/3/4391, (1998-2000).
7. EPET II-Subprogram 1 “Biotechnological utilization of whey, a useless by-product of the dairy industry, for production of xanthan gum useful as a stabilizer and a thickener in food industry”, 70/4/4242, (2000- 2002).
8. EU-ACTAPHARM (QLRT-2000-01783) “Innovative approaches to the discovery of novel bioactive compounds from natural actinomycete communities”, 70/3/6132, (2001-2004).
9. PYTHAGORAS II, Hellenic Ministry of National Education and Religious Affairs, “Development of a strategic detection of microbial strains with biotechnological properties in samples from the Greek environment”, 70/3/7978, (2005-2008)
10. PENED, Hellenic Ministry for Development, 2005 “Development of strategies for the assessment of pathogen or non pathogen bacteria in tanks of drinkable water”, (2003-2009)
11. ACROPOLIS II, 2005-today “Microbial Diversity of specific bacterial communities on Acropolis marbles using molecular biology techniques”.
12. Chipita S.A., 2005-today “Isolation and molecular typing of microbial strains involved in production process. Qualification and quantification of critical microbial population in processed food”.