

## Dr. Michalis Koutinas

### Assistant Professor in Environmental Biotechnology

Environmental Bioprocessing Laboratory  
Department of Environmental Science & Technology  
Cyprus University of Technology (CUT)  
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**Fax:** +357-2500-2855

**Email:** [michail.koutinas@cut.ac.cy](mailto:michail.koutinas@cut.ac.cy)

**Nationality:** Greek

**Marital Status:** Married, 2 children

**Date of Birth:** 21.09.78

**Foreign Languages:** English (fluent - Proficiency, Cambridge), German (basic - Zertifikat Grundstufe)

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#### RESEARCH INTERESTS

- **Expertise** in biochemical engineering, environmental biotechnology, industrial biotechnology, mathematical modelling and advanced molecular techniques.
  - Application of biological systems for the treatment of **toxic** and **persistent pollutants**, including imidazolium-, tetrabutylammonium- and pyridinium-based ionic liquids from wastewater as well as the treatment of solid waste emitted from natural gas drillings.
  - Biotechnological applications for the production of **added-value chemicals** (e.g succinic acid, ethyl lactate) and **biofuels** (e.g. ethanol) from waste and renewable resources (e.g. cheese whey, citrus peel).
  - Development of **mathematical models** for understanding specific metabolic properties of the strains employed and the function of the bioprocess applied.
  - Utilisation of **advanced molecular techniques** for detecting specific microbial strains used in applied bioprocesses, as well as for quantification of important metabolic properties.
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#### EDUCATION AND EMPLOYMENT HISTORY

**Apr 2016-Now**      **Assistant Professor in Environmental Biotechnology** at the Department of Environmental Science & Technology (Cyprus University of Technology).

**Jan 2012-Apr 2016 Lecturer in Environmental Biotechnology** at the Department of Environmental Science & Technology (Cyprus University of Technology).

**May 2011-Nov 2011** Fulfilled a 6-month compulsory military service to the Greek army as a **specialised scientist at the Hellenic Army Chemistry Laboratory.**

**Jan 2007-Apr 2011 Postdoctoral Research (Research Associate)** at the Department of Chemical Engineering (Centre for Process Systems Engineering, Imperial College London). Supervisor: Prof. Athanasios Mantalaris (Biological Systems Engineering Laboratory), Co-Supervisor: Prof. Efstratios N. Pistikopoulos (Process Systems Engineering).

**2002-Aug 2006 PhD in Biochemical Engineering** at the Department of Chemical Engineering (Imperial College London) “*Microbial Strain Dynamics and Bioreactor Stability in an Intensive Oil Absorber Bioscrubber System*”. Supervisor: Prof. Andrew G. Livingston (Biotechnology and Bioprocess Engineering Group), Co-Supervisor: Prof. Athanasios Mantalaris (Biological Systems Engineering Laboratory).

**2006 Diploma in Pollution Control** at the Department of Chemical Engineering (Imperial College London)

**1996-2001 Diploma of the Chemical Engineer, University of Patras, Greece**

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## **PUBLICATIONS**

### **Publications at international journals and books**

*As Assistant Professor at Cyprus University of Technology*

1. **Koutinas M**, Yiangou C, Osório NM, Ioannou K, Canet A, Valero F, Ferreira-Dias S. 2017. Application of commercial and non-commercial immobilized lipases for biocatalytic production of ethyl lactate in organic solvents. *Bioresource Technology*, In Press.
2. Patsalou M, Menikea KK, Makri E, Vasquez MI, Drouza C, **Koutinas M**. 2017. Development of a citrus peel-based biorefinery strategy for the production of succinic acid. *Journal of Cleaner Production*, 166:706-716.

3. Papadaki A, Androutsopoulos N, Patsalou M, **Koutinas M**, Kopsahelis N, Papanikolaou S, Koutinas AA. 2017. Biotechnological production of fumaric acid: The effect of morphology of *Rhizopus arrhizus* NRRL 2582. *Fermentation*, 3:33.
4. Tsipa A, **Koutinas M**, Vernardis SI, Mantalaris A. 2017. The impact of succinate trace on pWW0 and *ortho*-cleavage pathway transcription in *Pseudomonas putida* mt-2 during toluene biodegradation. *Bioresource Technology*, 234:397-405.
5. Patsalou M, **Koutinas M**. 2017. Food waste valorization for the production of added-value commodities: Focus on citrus peel waste as a feedstock for sustainable biorefineries. In: Municipal solid waste: Management strategies, challenges and future directions. Commack: Nova Science Publishers, Inc., ISBN: 978-1-53611-865-0.
6. Pateraki C, Patsalou M, Vlysidis A, Kopsahelis N, Webb C, Koutinas AA, **Koutinas M**. 2016. *Actinobacillus succinogenes*: Advances on succinic acid production and prospects for development of integrated biorefineries. *Biochemical Engineering Journal*, 112:285-303.
7. Tsipa A, **Koutinas M**, Pistikopoulos EN, Mantalaris A. 2016. Transcriptional kinetics of the cross-talk between the *ortho*-cleavage and TOL pathways of toluene biodegradation in *Pseudomonas putida* mt-2. *Journal of Biotechnology*, 228:112-123.
8. **Koutinas M**, Patsalou M, Stavrinou S, Vyrides I. 2016. High temperature alcoholic fermentation of orange peel by the newly isolated thermotolerant *Pichia kudriavzevii* KVMP10. *Letters in Applied Microbiology* 62:75-83.

As Lecturer at Cyprus University of Technology

9. Vyrides I, Agathangelou M, Dimitriou R, Souroullas K, Salamex A, Ioannou A, **Koutinas M**. 2015. Novel *Halomonas* sp. B15 isolated from Larnaca Salt Lake in Cyprus that generates vanillin and vanillic acid from ferulic acid. *World Journal of Microbiology and Biotechnology* 31:1291-1296.
10. Drakou E-M, **Koutinas M**, Pantelides I, Tsolakidou M, Vyrides I. 2015. Insights into the metabolic basis of the halotolerant *Pseudomonas aeruginosa* strain LVD-10 during toluene biodegradation. *International Biodeterioration & Biodegradation* 99:85-94.
11. Turon X, Venus J, Arshadi M, **Koutinas M**, Lin CSK, Koutinas A. 2014. Food waste and byproduct valorization through bio-processing: Opportunities and challenges. *Bioresources* 9:5774-5777.

12. **Koutinas M**, Menelaou M, Nicolaou EN. 2014. Development of a hybrid fermentation-enzymatic bioprocess for the production of ethyl lactate from dairy waste. *Bioresource Technology* 165:343-349.
13. **Koutinas M**, Kiparissides A, Pistikopoulos EN, Mantalaris A. 2012. Bioprocess systems engineering: transferring traditional process engineering principles to industrial biotechnology. *Computational and Structural Biotechnology Journal* 3:e201210022.

As Research Associate and PhD student at Imperial College London

14. **Koutinas M**, Kiparissides A, Lam M-C, Silva-Rocha R, Godinho M, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2011. Improving the prediction of *Pseudomonas putida* mt-2 growth kinetics with the use of a gene expression regulation model of the TOL plasmid. *Biochemical Engineering Journal* 55:108-118.
15. **Koutinas M**, Kiparissides A, Silva-Rocha R, Lam M-C, Martins dos Santos VAP, de Lorenzo V, Pistikopoulos EN, Mantalaris A. 2011. Linking genes to microbial growth kinetics – an integrated biochemical systems engineering approach. *Metabolic Engineering* 13:401-413.
16. Kiparissides A, **Koutinas M**, Kontoravdi C, Mantalaris A, Pistikopoulos EN. 2011. ‘Closing the loop’ in biological systems modelling - from the *in silico* to the *in vitro*. *Automatica* 47:1147-1155.
17. Kiparissides A, **Koutinas M**, Moss T, Newman J, Pistikopoulos EN, Mantalaris A. 2011. Modelling the delta1/notch1 pathway; in search of the mediator(s) of neural stem cell differentiation. *PLoS One* 6:e14668.
18. **Koutinas M**, Lam M-C, Kiparissides A, Silva-Rocha R, Godinho M, Livingston AG, Pistikopoulos EN, de Lorenzo V, Martins dos Santos VAP, Mantalaris A. 2010. The regulatory logic of *m*-xylene biodegradation by *Pseudomonas putida* mt-2 exposed by dynamic modelling of the principal node Ps/Pr of the TOL plasmid. *Environmental Microbiology* 12:1705-1718.
19. **Koutinas M**, Baptista IIR, Meniconi A, Peeva LG, Mantalaris A, Castro PML, Livingston AG. 2007. The use of an oil-absorber-bioscrubber system during biodegradation of sequentially alternating loadings of 1,2-dichloroethane and fluorobenzene in a waste gas. *Chemical Engineering Science* 62:5989-6001.
20. **Koutinas M**, Baptista IIR, Peeva LG, Ferreira Jorge RM, Livingston AG. 2007. The use of an oil absorber as a strategy to overcome starvation periods in degrading 1,2-dichloroethane in waste gas. *Biotechnology and Bioengineering* 96:673-686.

21. **Koutinas M**, Martin J, Peeva LG, Mantalaris A, Livingston AG. 2006. An oil-absorber-bioscrubber system to stabilise biotreatment of pollutants present in waste gas. Fluctuating loads of 1,2-dichloroethane. *Environmental Science and Technology* 40:595-602.
22. **Koutinas M**, Peeva LG, Livingston AG. 2005. An attempt to compare the performance of bioscrubbers and biotrickling filters for degradation of ethyl acetate in gas streams. *Journal of Chemical Technology and Biotechnology* 80:1252-1260.
23. Kiparissides A, **Koutinas M**, Pistikopoulos EN, Mantalaris A. 2011. Model development and analysis of mammalian cell culture systems. In: Dynamic process modelling. pp: 403-440. Weinheim: Wiley-VCH Verlag GmbH & Co. KGaA. ISBN: 978-3-527-31696-0.

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#### Conference papers with review

24. **Koutinas M**, Kiparissides A, Lam M-C, Silva-Rocha R, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2010. Combining genetic circuit and microbial growth kinetic models: a challenge for biological modelling. *Computer-Aided Chemical Engineering* 28:301-306.
25. **Koutinas M**, Kiparissides A, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2011. Predicting microbial growth kinetics with the use of genetic circuit models. *Computer-Aided Chemical Engineering* 29:1321-1325.
26. Patsalou M, Pateraki C, Vasquez M, Drouza C, **Koutinas M**. 2016. Bioprocess development for the production of succinic acid from orange peel waste. 4<sup>th</sup> International Conference on Sustainable Solid Waste Management (CYPRUS 2016), Limassol, Cyprus, 23-25 June 2016.

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#### Conference and workshop presentations

##### As Assistant Professor at Cyprus University of Technology

1. **Koutinas M**. 2017. Food waste valorization for the production of added-value commodities: Focus on citrus peel waste as a feedstock for sustainable biorefineries. Mediterranean Workshop 2017, Naples, Italy, 23-24 October 2017, (**invited oral - Koutinas M**).
2. Tsipa A, Vernardis SI, **Koutinas M**, Pistikopoulos EN, Mantalaris A. 2015. How genetic circuit kinetics is connected to prediction of bioprocess performance? The special case of *Pseudomonas putida* mt-2. *Focused Meeting 2017: 16<sup>th</sup> International Conference on Pseudomonas*, Liverpool, UK, 5-9 September 2017, (**poster - Tsipa A**).

3. **Koutinas M.** 2017. Screening for biocatalysts producing added-value commodities from alkaloids: The case of lupanine. *Workshop – Closing the loop on valorization of food processing wastewater containing alkaloids: The lupanine case.* Milan, Italy, 29 May 2017, **(invited oral - Koutinas M)**.
4. Parmaki S, Vyrides I, Andreou V, Hartman V, Drouza C, **Koutinas M.** 2017. Valorization of alkaloid containing wastewater through the isolation of microorganisms converting lupanine into added-value products. 7<sup>th</sup> International Forum on Industrial Bioprocesses (IFIBiop2017), Wuxi, China, 21-24 May 2017, **(oral - Parmaki S)**.
5. Yiangou C, Ferreira-Dias S, Ioannou K, Osorio NM, Canet A, Valero F, **Koutinas M.** 2017. Application of lipases from *Candida antarctica* B and *Candida rugosa* for the production of ethyl lactate from cheese whey. 7<sup>th</sup> International Forum on Industrial Bioprocesses (IFIBiop2017), Wuxi, China, 21-24 May 2017, **(invited oral - Koutinas M)**.
6. **Koutinas M.** 2016. Biochemical systems engineering: A systems approach for the production of chemicals, biofuels and biopolymers from waste and biomass. NIREAS Speaker Series – When Ideas Flow, NIREAS International Water Research Center, University of Cyprus, 12 October 2016, **(invited oral - Koutinas M)**.
7. Yiangou C, Ferreira-Dias S, Ioannou K, Osorio NM, Canet A, Valero F, **Koutinas M.** 2016. Green solvent biosynthesis by esterification of lactic acid and ethanol in different biocatalysts and organic media. *Workshop - The future of food waste: Challenges and opportunities for valorisation in Europe.* Wageningen, The Netherlands, 20-21 Sept 2016, **(poster - Koutinas M)**.
8. Patsalou M, Vasquez M, Drouza C, **Koutinas M.** 2016. Bioprocess development for the production of succinic acid from orange peel waste. 4<sup>th</sup> International Conference on Sustainable Solid Waste Management (CYPRUS 2016), Limassol, Cyprus, 23-25 June 2016, **(oral - Patsalou M)**.

As Lecturer at Cyprus University of Technology

9. **Koutinas M,** Pashali P, Loizou E, Nicolaou E, Vasquez MI, Vyrides I. 2015. Contaminants on the Horizon: Bioprocess development for the treatment of ionic liquid-polluted industrial effluents. *New Horizons in Biotechnology (NHBT 2015)*, Trivandrum, India, 22-25 November 2015, **(invited oral - Koutinas M)**.
10. Patsalou M, Drouza C, **Koutinas M.** 2015. Development of an orange peel-based biorefinery strategy for the production of succinic acid. *Development of pilot scale or integrated*

- bioprocesses based on refining of food supply chain wastes (WG2 Workshop of COST Action TD1203)*, Potsdam, Germany, 29-30 Sept 2015, **(oral - Koutinas M)**.
11. Tsipa A, **Koutinas M**, Mantalaris A, Pistikopoulos EN. 2015. Prediction of double substrate microbial growth kinetics through transcriptional regulation: an integrated experimental/modelling approach on *Pseudomonas putida* mt-2. *2015 AIChE Annual Meeting*, Salt Lake City, Utah, USA, 8-13 November 2015, **(oral - Tsipa A)**.
  12. Tsipa A, Vernardis SI, **Koutinas M**, Pistikopoulos EN, Mantalaris A. 2015. Effect of succinate traces on TOL plasmid and chromosomal metabolic pathways of *Pseudomonas putida* mt-2 growing on toluene. *Recent Technologies in Microbiology (RTM'15)*, Birmingham, UK, 5 June 2015, **(poster - Tsipa A)**.
  13. Tsipa A, **Koutinas M**, Mantalaris A, Pistikopoulos EN. 2014. Development of a new paradigm in biochemical engineering: predicting the genetic regulation of aromatic pollutants degradation. *2014 AIChE Annual Meeting*, Atlanta, Georgia, USA, 16-21 November 2014, **(oral - Tsipa A)**.
  14. **Koutinas M**. 2014. Industrial food waste valorisation processes. *2<sup>nd</sup> Training School of COST Action ES1202*, Nicosia, Cyprus, 29-31 Oct 2014, **(invited oral - Koutinas M)**.
  15. Patsalou M, **Koutinas M**. 2014. Development of an orange peel based biorefinery strategy for the production of succinic acid. *10<sup>th</sup> European Symposium on Biochemical Engineering Sciences and 6<sup>th</sup> International Forum on Industrial Bioprocesses (in collaboration with ACS)*, Lille, France, 7-10 September 2014, **(oral - Koutinas M)**.
  16. **Koutinas M**, Menelaou M, Nicolaou EN. 2014. Bioprocess development for the production of ethyl lactate from dairy waste. *18<sup>th</sup> Green Chemistry & Engineering Conference (ACS-GC&E)*, North Bethesda, Washington D.C., Maryland, USA, 17-19 June 2014, **(invited oral - Koutinas M)**.
  17. **Koutinas M**, Menelaou M, Nicolaou EN. 2014. Development of a two-stage bioprocess for the production of the green solvent ethyl lactate from dairy waste. *2<sup>nd</sup> Workshop of the COST Action TD1203*, Toulouse, France, 21-22 January 2014, **(oral - Koutinas M)**.
  18. **Koutinas M**, Menelaou M, Nicolaou EN. 2013. Valorization of cheese dairy wastes for the production of the “green” solvent ethyl lactate. *International Conference on Advances in Biotechnology and Bioinformatics 2013 (ICABB-2013) and X Convention of Biotech Research Society*, Pune, India, 25-27 November 2013, **(invited oral - Koutinas M)**.

19. **Koutinas M**, Menelaou M, Nicolaou EN. 2013. Development of a two-stage bioprocess for the production of the “green” solvent ethyl lactate from dairy wastes. *International Conference on Health, Environment and Industrial Biotechnology (BioSangam-2013)*, Allahabad, India, 21-23 November 2013, **(invited oral - Koutinas M)**.
20. **Koutinas M**. 2013. A biochemical systems engineering approach for the production of added-value chemicals from renewable resources. 1<sup>st</sup> Working Group 2 meeting entitled *Bioprocessing, COST Action TD1203*, Athens, Greece, 12 April 2013, **(oral - Koutinas M)**.
21. **Koutinas M**, Kiparissides A, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2012. Let’s go upstream! Gene regulation as a path from traditional to advanced growth kinetic models. *5<sup>th</sup> International Conference on Industrial Bioprocesses*, Taipei, Taiwan, 7-10 October 2012, **(invited oral - Koutinas M)**.

*As Research Associate and PhD student at Imperial College London*

22. Mantalaris A, **Koutinas M**, Kiparissides A, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN. 2011. Linking genes to microbial growth kinetics: An integrated biochemical systems engineering approach. *13<sup>th</sup> International Conference on Pseudomonas*, Sydney, Australia, 4-7 September 2011, **(invited oral – Mantalaris A)**.
23. **Koutinas M**, Kiparissides A, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2011. Integrating gene regulatory and metabolic models to predict microbial growth kinetics. *7<sup>th</sup> GRACM International Congress on Computational Mechanics*, Athens, Greece, 30 June - 2 July 2011, **(oral - Koutinas M)**.
24. **Koutinas M**, Kiparissides A, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2011. Predicting microbial growth kinetics with the use of genetic circuit models. *21<sup>st</sup> European Symposium on Computer Aided Process Engineering – ESCAPE-21*, Chalkidiki, Greece, 29 May - 1 June 2011, **(poster - Koutinas M)**.
25. **Koutinas M**, Kiparissides A, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2010. Advancing microbial growth kinetic models with the use of genetic modeling. *2010 AIChE Annual Meeting*, Salt Lake City, Utah, USA, 7-12 November 2010, **(oral - Koutinas M)**.
26. **Koutinas M**, Kiparissides A, Lam M-C, Silva-Rocha R, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2010. Establishment of a modelling framework for the



development of optimised biocatalysts. *Metabolic Engineering VIII: Metabolic Engineering for Green Growth*, Jeju Island, South Korea, 13-17 June 2010, (**poster - Koutinas M**).

27. **Koutinas M**, Kiparissides A, Lam M-C, Silva-Rocha R, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2010. Combining genetic circuit and microbial growth kinetic models: a challenge for biological modelling. *20<sup>th</sup> European Symposium on Computer Aided Process Engineering – ESCAPE-20*, Ischia, Naples, Italy, 6-9 June 2010, (**oral - Koutinas M**).
28. **Koutinas M**, Lam M-C, Kiparissides A, Silva-Rocha R, Godinho M, de Lorenzo V, Pistikopoulos EN, Martins dos Santos VAP, Mantalaris A. 2009. Model driven decisions for the understanding and optimisation of microorganisms genetic circuits: an application in biodegradation of aromatic compounds. *7<sup>th</sup> Panhellenic Scientific Chemical Engineering Conference*, University of Patras, Patras, Greece, 3-5 June 2009, (**oral - Koutinas M**).
29. **Koutinas M**, Lam M-C, Kiparissides A, Silva-Rocha R, Godinho M, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2009. A systems engineering approach to understanding genetic circuits: model driven decisions for the improvement of aromatic compounds decomposition by TOL. *2<sup>nd</sup> SysMO Evaluation Conference*, Vienna, Austria, 19-20 May 2009, (**poster - Koutinas M**).
30. Baptista IIR, **Koutinas M**, Mantalaris A, Livingston AG. 2008. Revealing microbial strain dynamics case study in an oil-absorber-bioscrubber system. *Proceedings of the 2008 AIChE Annual Meeting*, Philadelphia, PA, USA, 15-21 November 2008, pp.35a, (**oral - Baptista IIR**).
31. Lam M-C, **Koutinas M**, Kiparissides A, Godinho M, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2008. Formal design tools for synthetic biology – engineering the building blocks of genetic circuit in *Pseudomonas putida*. *Synthetic Biology 4.0*, Hong Kong University of Science & Technology, Clear Water Bay, Kowloon, Hong Kong 10-12 October 2008, (**oral - Lam M-C**).
32. Lam M-C, **Koutinas M**, Kiparissides A, Godinho M, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2008. Towards a model of the biodegradation network in *Pseudomonas putida*: in silico study of functional units responsible for the degradation of aromatics. *Synthetic Biology 4.0*, Hong Kong University of Science & Technology, Clear Water Bay, Kowloon, Hong Kong 10-12 October 2008, (**poster - Lam M-C**).
33. **Koutinas M**, Lam M-C, Kiparissides A, Silva-Rocha R, Godinho M, de Lorenzo V, Martins dos Santos VAP, Pistikopoulos EN, Mantalaris A. 2008. A systems engineering approach to understanding genetic circuits: model driven decisions for the improvement of aromatic

compounds decomposition by TOL. *1<sup>st</sup> SysMO Evaluation Conference*, Bad Honnef, Germany, 30 June-2 July 2008, (**poster - Koutinas M**).

34. **Koutinas M**, Baptista IIR, Meniconi A, Peeva LG, Mantalaris A, Castro PML, Livingston AG. 2006. Microbial dynamics and bioreactor stability in an oil-absorber-bioscrubber system exposed to an alternating sequence of 1,2-dichloroethane and fluorobenzene. *Proceedings of the 2006 AIChE Annual Meeting*, San Francisco, California, USA, 12-17 November 2006, pp.299s, (**poster - Baptista IIR**).
  35. **Koutinas M**, Martin J, Peeva LG, Mantalaris A, Livingston AG. 2005. Sunflower oil-absorber-bioscrubber system for treatment of 1,2-dichloroethane waste-gas shock loads, *Proceedings of the Third European Bioremediation Conference*, Chania, Greece, 4-7 July 2005, pp.205, (**oral - Koutinas M**).
  36. **Koutinas M**, Peeva LG, Livingston AG. 2004. Bioscrubber and biotrickling filter: performance comparison under ethyl acetate vapour detoxification. *10<sup>th</sup> International Summer School of Chemical Engineering*, Varna, Bulgaria, 24-31 May 2004, pp.240, (**oral - Koutinas M**).
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## **DISTINCTIONS**

- **Invited** to present my work by the organizers of the following **10 international conferences and workshops**:
  - 1) **Mediterranean Workshop 2017**, Naples, Italy, 23-24 October 2017;
  - 2) **7<sup>th</sup> International Forum on Industrial Bioprocesses (IFIBiop2017)**, Wuxi, China, 21-24 May 2017;
  - 3) **Workshop – Closing the loop on valorization of food processing wastewater containing alkaloids: The lupanine case**, Milan, Italy, 29 May 2017;
  - 4) **NIREAS Speaker Series – When Ideas Flow**, NIREAS International Water Research Center, University of Cyprus, 12 October 2016;
  - 5) **New Horizons in Biotechnology (NHBT 2015)**, Trivandrum, India, 22-25 November 2015;
  - 6) **2<sup>nd</sup> Training School of COST Action ES1202**, Nicosia, Cyprus, 29-31 October 2014;
  - 7) **18<sup>th</sup> Green Chemistry & Engineering Conference (ACS-GC&E)**, North Bethesda, Washington D.C., Maryland, USA, 17-19 June 2014;

- 8) **International Conference on Advances in Biotechnology and Bioinformatics 2013 (ICABB-2013) and X Convention of Biotech Research Society**, Pune, India, 25-27 November 2013;
  - 9) **International Conference on Health, Environment and Industrial Biotechnology (BioSangam-2013)**, Allahabad, India, 21-23 November 2013;
  - 10) **5<sup>th</sup> International Conference on Industrial Bioprocesses**, Taipei, Taiwan, 7-10 October 2012.
- **Chair of the “Industrial Biotechnology” session** of the 7<sup>th</sup> International Forum on Industrial Bioprocesses (IFIBiop2017), Wuxi, China, 21-24 May 2017.
  - **Evaluation for the best presentation award** of the 7<sup>th</sup> International Forum on Industrial Bioprocesses (IFIBiop2017), Wuxi, China, 21-24 May 2017.
  - **Evaluator in the poster session** of the 7<sup>th</sup> International Forum on Industrial Bioprocesses (IFIBiop2017), Wuxi, China, 21-24 May 2017.
  - **Evaluator in the poster session** of the International Conference on Advances in Biotechnology and Bioinformatics 2013 (ICABB-2013) and X Convention of Biotech Research Society, Pune, India, 25-27 November 2013.
  - Prof. Athanasios Mantalaris was **invited** by the organisers of the **13<sup>th</sup> International Conference on Pseudomonas**, 4-7 Sept 2011, Sydney, Australia to present (plenary presentation) the work of my postdoctoral research.
  - Ranked in the **5<sup>th</sup> position** between 90 successful students that achieved the admission in the Department of Chemical Engineering of the University of Patras.
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## AWARDS

### July 2015

Awarded the **Elsevier Outstanding Reviewer Status** for being in the top 10<sup>th</sup> percentile in terms of the number of reviews completed for *Biochemical Engineering Journal* in the past two years.

### Mar 2015

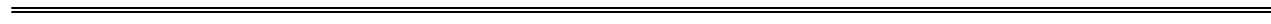
The paper “Development of a hybrid fermentation–enzymatic bioprocess for the production of ethyl lactate from dairy waste” has been **featured in the Renewable Energy Global Innovations Series**

(<http://reginnovations.org/>) as a “**Key Scientific Article contributing to the excellence in Energy research**”.

**Jan 2007-Dec 2010**    **ERA-NET Scholarship** funded by the project **SysMO** – *Systems Analysis of Process-Induced Stresses: Towards a Quantum Increase in Performance of Pseudomonas putida as the Cell Factory of Choice for White Biotechnology.*

**2002-Aug 2006**    **Marie Curie Scholarship** funded by the **RTN** project **BIOSAP** – *Biotreatment of Sequentially Alternating Pollutants (SAP) in Wastewaters.*

**2000-2001**    Award from the **Technical Chamber of Greece** for **excellent academic performance** during my 5<sup>th</sup> year of studies.



## **TEACHING EXPERIENCE**

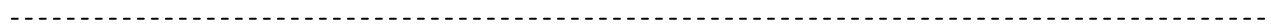
**Cyprus University of Technology - Supervisor in the following undergraduate courses**

**Jan 2012-Now**

- 1) Environmental Biotechnology II (6 semesters)
- 2) Environmental Biotechnology II Labs (6 semesters)
- 3) Solid Waste Engineering & Treatment Technologies (6 semesters)
- 4) Ecology (6 semesters)

**Jan 2012-May 2012**

- 5) Principles of Thermodynamics (Co-supervision with Dr. Daskalakis, 1 semester)



**Cyprus University of Technology - Supervisor in the following postgraduate courses**

**Sept 2014- May 2015**

- 1) Advanced Environmental Biotechnology (Co-supervision with Dr. Vyrides, 1 semester)
- 2) Advanced Special Topics on Environmental Biosciences (Co-supervision with Prof. Varotsis, Dr. Vyrides, Dr. Daskalakis, Dr. Vasquez and Dr. Andreou, 1 semester)

## **Jan 2013-June 2014**

- 1) Advanced Environmental Biotechnology II and Marine Chemical Ecology  
(2 semesters)
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## **Imperial College London**

**Jan 2007-Apr 2011 Teaching Assistant in the course “Advanced Bioprocess Engineering”**  
(postgraduate course at Imperial College London, 1 semester)

**Jan 2007-Apr 2011 Supervisor in the undergraduate course “2<sup>nd</sup> Year Labs” (Imperial College London, 1 semester)**

**2002-Aug 2006 Demonstrator in the following Chemical Engineering courses (Imperial College London, 3 semesters):**

- 1) Tutorials in **Biochemistry** (1 semester)
  - 2) Demonstrator in **four lab experiments** (2 semesters)
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## **SUPERVISION OF STUDENTS**

**Jan 2012-Now Supervision to 16 undergraduate, 8 MSc and 4 PhD students to their research leading to dissertations for the award of bachelor’s, M.Sc. and Ph.D. degrees.**

### **PhD Students**

- 1) Maria Patsalou (**Supervisor**)
- 2) Stella Parmaki (**Supervisor**)
- 3) Maria Kyriakou (**Supervisor**)
- 4) Giota Photiou (**Co-Supervisor**)

### **MSc Students**

- 1) Eleni Protopapa
- 2) Sofia Georgiou
- 3) Euthimia Nikolaou
- 4) Stella Stavrinou
- 5) Anastasia Konstantinou

- 6) Maria Menelaou
- 7) Evrydiki Nikolaou
- 8) Anastasia Salameh

### **Undergraduate Students**

- 1) Eftychia Makri
- 2) Katerina Ioannou
- 3) Eleni Kyriakou
- 4) Valentinos Andreou
- 5) Alexandra Neofytou
- 6) Elena Loizou
- 7) Kristia Karolina Menikea
- 8) Eleana Pavlidou
- 9) Stella Parmaki
- 10) Maria Bakana
- 11) Stella Stavrinou
- 12) Marina Hadjikosta
- 13) Panayiota Photiou
- 14) Petros Pashali
- 15) Elena Michael
- 16) Georgia Nikolaou

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### **REVIEWER IN SCIENTIFIC JOURNALS AND CONFERENCES**

Reviewer in more than **96 papers** for **28 journals** and conferences including among others Annals of Microbiology, Biochemical Engineering Journal, Bioprocess & Biosystems Engineering, Biotechnology Progress, Computers & Chemical Engineering, Desalination & Water Treatment, Enzyme & Microbial Technology, Journal of Food Engineering, Letters in Applied Microbiology, Process Biochemistry, Renewable & Sustainable Energy Reviews, Science of the Total Environment and Water Science & Technology.

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### **PARTICIPATION IN INTERNATIONAL ORGANISATIONS AND FORUMS**

Member of the **International Forum on Industrial Bioprocesses (IFIBiop)**

### **ADMINISTRATIVE DUTIES**

- 1) **Jul 2017-Now** Member of the **Departmental Committee** of Undergraduate Studies
  - 2) **Nov 2016-Now** Member of the **Departmental Committee** of Quality Assurance
  - 3) **Jul 2016-Now** Elected member of the Cyprus University of Technology **Senate**
  - 4) **Feb 2016-Now** Member of an *ad hoc* **Committee** aiming to systematically monitor the University's participation in international ranking systems
  - 5) **Jan 2016-Aug 2016** Elected member of the Geotechnical Sciences and Environmental Management **Faculty Board**
  - 6) **Nov 2015-Now** Member of the **Departmental Committee** of Postgraduate Studies
  - 7) **Jan 2015-Now** Member of the **Senatorial Committee** of Research Ethics and Deontology
  - 8) **Jan 2014-May 2015** Elected member of the Geotechnical Sciences and Environmental Management **Faculty Board**
  - 9) **Jan 2014-Jul 2016** Member of the **Senatorial Committee** of Internal Quality Assurance
  - 10) **Dec 2014-Now** Member of the **Departmental Committee** of Health and Safety
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### **PARTICIPATION IN RESEARCH PROJECTS**

- Sept 2017-Aug 2019** Member of CUT's team in "Optimization of decentralized domestic wastewater treatment and sanitation via Constructed Wetlands **DOMUS\_CW**", INTERREG Balkan-Med, Budget (CUT): **€169,000**.
- July 2017-June 2020** Principal Investigator in "Biogas and digestate with controlled ammonia content by a virtuous biowaste cycle with integrated bio&chemical processes – **LIFECAB**", LIFE 2016 ENV/IT/000179, Budget (CUT): **€232,860**.
- May 2016-Apr 2019** Principal Investigator in "Bioorganic novel approaches for food processing wastewater treatment and valorisation: Lupanine case study –

**BIORG4WASTEWATERVAL+”, WATERWORKS 2014**  
COFUNDED CALL, Budget (CUT): €130,000.

**Sept 2015-Dec 2016** *Anaerobic treatment of dairy wastewater* (Charalambides-Christis Ltd),  
Budget (CUT): €1,000.

**Jan 2013-Now** Participation as representative of Cyprus in **COST Action TD1203** “*Food Waste Valorisation for Sustainable Chemicals, Materials and Fuels (EUBis)*”.

**Aug 2013-Jul 2015** Principal Investigator in **BioVAL - Valorization of cheese dairy wastes for the production of added-value chemicals** (Cyprus University of Technology **Starting Grant**), **Budget (CUT): €40,000.**

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*As Research Associate and PhD Student at Imperial College London*

**SysMO** – *Systems Analysis of Process-Induced Stresses: Towards a Quantum Increase in Performance of Pseudomonas putida as the Cell Factory of Choice for White Biotechnology* (BBSRC – **ERA-NET** program on the Systems Biology of Microorganisms). **Budget (ICL): £374,665**

**PROBACTYS** – *Programmable Bacterial Catalysts* (**6<sup>th</sup> Framework program of the European commission** – NEST-PATHFINDER EU call on Synthetic Biology, Project N<sup>o</sup> – NEST-029104). **Budget (ICL): £300,600**

**TARPOL** – *Targeting Environmental Pollution with Engineered Microbial Systems A La Carte* (**7<sup>th</sup> Framework program of the European commission** – **KBBE Coordination Action** for SynBio in Environmental Sciences). **Budget (ICL): £33,440**

**BIOSAP** - *Biotreatment of Sequentially Alternating Pollutants (SAP) in Wastewaters* (**5<sup>th</sup> Framework program of the European commission, Marie Curie – Research Training Network**, Contract N<sup>o</sup> – HPRTN-CT-2002-00213, Proposal N<sup>o</sup> – RTN2 - 2001 - 00477).

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## **EVALUATOR OF PROPOSALS**

**June 2016** Evaluator of project proposals to the **Water JPI 2016 Joint Call** “Sustainable management of water resources in agriculture, forestry and freshwater aquaculture sectors”.

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### **METRICS FROM SCOPUS**

Citations: 192

H-Index: 8

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### **METRICS FROM WEB OF SCIENCE**

Citations: 157

H-Index: 7

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### **METRICS FROM SCHOLAR**

Citations: 274

H-Index: 10

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