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## BIOGRAPHICAL SKETCH

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NAME:FOTINI TRIKKA

POSITION TITLE:POST-DOCTORAL RESEARCHER

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### EDUCATION/TRAINING

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INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Department of Physics, Aristotle University of Thessaloniki, Greece	PhD in Nanobiotechnology (10/10)	02/2010	Title of thesis: Nanoimprinting of biomolecules on polymers for selective recognition and separation.
Department of Physics, Aristotle University of Thessaloniki, Greece	MSc in Nanobiotechnology (8.63/10)	09/2005	Title of thesis: Immobilization of biomolecules on polymeric matrixes for selective recognition and separation.
Department of Chemistry, Aristotle University of Thessaloniki, Greece	BSc in Chemistry	09/2003	Diploma work: Study of the nucleases from the Ni hyperaccumulator Alyssum Murale».

### A. Personal Statement

In 2003, I completed my bachelor degree in Chemistry, with emphasis on Organic Chemistry/ Biochemistry. During my thesis, I synthesized and characterized polymers bearing specific cavities to bind biomolecules (e.g. histamine) in a lock and key manner. After the completion of my thesis, I was on quest of a new field to continue with my post-doctoral career. Greek flora was always amazing me with its unique properties, so in July 2011, I started my journey in a different field of biotechnology at the Institute of Applied Biosciences under the supervision of Dr. A. Makris. During my time in INAB, I have been deeply involved in the study of Greek flora both in a genetic and metabolome level. I have been involved both in the mining of terpene synthases genes from aromatic plants of the genus *Salvia* as well as in the genetic engineering of yeast strains for the industrial production of high added value terpenes, like sclareol. Furthermore, I have been actively involved in the transcriptome study of marine algae of the genus *Laurencia* as well as in the reconstitution of the neorogioltriol pathway in yeast strain for the efficient production of this marine product.

### B. Positions and Honors

- **March 2017-March 2019**

Post doctoral fellowship from the Greek State Scholarship Foundation (I.K.Y). Title of research: "Valuation of genetic and buiochemical potential of native plants of the family Sideritis".

- **July 2011-now**

Post-doctoral researcher at the Institute of Applied Biosciences, Centre for Research and Technology Hellas, Greece, in national and European projects.

### C. Contributions to Science

## Publications

- Ignea C., Athanasakoglou A., Ioannou E., Georgantea P., **Trikka F.A.**, Loupassaki S., Roussis V., Makris A.M. and Kampranis S.C. “*Carnosic acid biosynthesis elucidated by a synthetic biology platforms*”, Proc. Natl. Acad. Sci. U.S.A. 2016;113(13):3681.
  - Ignea C., Ioannou E., Georgantea P., **Trikka F.A.**, Athanasakoglou A., Loupassaki S., Roussis V., Makris A.M. and Kampranis S.C. “*Production of the forskolin precursor 11 $\beta$ -hydroxy-manoyl oxide in yeast using surrogate enzymatic activities*”, Microbial Cell Factories 2016, 15:46.
  - **Trikka F.A.**, Nikolaidis A., Ignea C., Tsaballa A., Tziveleka L.A., Ioannou E., Roussis V., Stea E.A., Božić D., Argiriou A., Kanellis A.K., Kampranis S.C. and Makris A.M. ‘*Combined metabolome and transcriptome profiling provides new insights into diterpene biosynthesis in S. pomifera glandular trichomes*’, BMC Genomics 2015, 16:935.
  - Tsaballa A., Nikolaidis A., **Trikka F.A.**, Ignea C., Kampranis S.C., Makris A.M., Argiriou A., ‘*Use of the de novo transcriptome analysis of silver-leaf nightshade (Solanum elaeagnifolium) to identify gene changes associated with wounding and terpene biosynthesis*’, BMC Genomics 2015, 16:504.
  - **Trikka F.A.**, Nikolaidis A., Athanasakoglou A., Andreadelli A., Ignea C., Argiriou A., Kampranis S.C., Makris A.M., ‘*Iterative carotenogenic screens identify combinations of yeast gene deletions that enhance sclareol production*’, Microbial Cell Factories, 2015, 14:60.
  - Ignea C., **Trikka F.A.**, Nikolaidis A., Georgantea P., Ioannou E., Loupassaki S., Kefalas P., Kanellis A.K., Roussis V., Makris A.M., Kampranis S.C., ‘*Efficient diterpene production in yeast by engineering Erg20p into a geranylgeranyl diphosphate synthase*’, Metabolic Engineering 2015, 27:65.
  - Ignea C., Ioannou E., Georgantea P., Loupassaki S., **Trikka F.A.**, Kanellis A.K., Makris A.M., Roussis V., Kampranis S.C., ‘*Reconstructing the chemical diversity of labdane-type diterpene biosynthesis in yeast*’, Metabolic Engineering 2015, 28:91.
  - **Trikka F.**, Yoshimatsu K., Ye L., Kyriakidis D., ‘*Molecularly imprinted polymers for histamine recognition in aqueous environment*’, Amino Acids 2012, 43(5):2113.
  - Ignea C., **Trikka F.A.**, Koutzelis I., Argiriou A., Kanellis A.K., Kampranis S.C., Makris A., ‘*Positive genetic interactors of HMG2 identify a new set of genetic perturbations for improving sesquiterpene production in Saccharomyces cerevisiae*’, Microbial Cell Factories 2012, 11: 162.
  - Papi R., Chaitidou S., **Trikka F.**, Kyriakidis D., ‘*Encapsulated Escherichia coli in alginate beads capable of secreting a heterologous pectin lyase*’, Microbial Cell Factories 2005, 4:35.
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## Conferences

- **15<sup>th</sup> Panhellenic Conference of the Hellenic Botanical Society, 14-17 September 2017, Chania, Greece**  
«Assessment of the biochemical potential of native *Sideritis* spp.» (poster)  
*F.A.Trikka, C. Grigoriadou, E. Maloupa, A.Makris, A. Argiriou*
- **27<sup>th</sup> Scientific Conference of E.E.E.O., 28 -29 September 2015, Volos, Greece**

«Analysis of extracts and essential oils from three genotypes of *Salvia sclarea* cultivated in conditions of north Greece»

*F.A. Trikka, C. Grigoriadou, A. Nikolaidis, A. Makris*

- **65<sup>th</sup> Panhellenic conference of Hellenic Society of Biochemistry and Molecular Biology, 28-30 November 2014, Thessaloniki, Greece**

«Identification of gene deletions that enhance sclareol production in *Saccharomyces cerevisiae*» (poster)

*F.A. Trikka, A. Nikolaidis, A. Athanasakoglou, A. Andreadelli, C. Ignea, A. Argiriou, S.C. Kampranis, A.M. Makris.*

- **15<sup>th</sup> Conference of Hellenic Scientific Society for Genetics and Plant Breeding, October 2014.**

«Sequencing and analysis of the transcriptome of the weed *Solanum elaeagnifolium*» (oral)

*Tsaballa, A. Nikolaidis, F.A. Trikka, C. Ignea, S.C. Kampranis, A.M. Makris, A. Argiriou.*

- **11th International Meeting on Biosynthesis, Function & Biotechnology of Isoprenoids in Terrestrial & Marine Organisms, TERPNET 2013;**

«Novel Genetic perturbations in *Saccharomyces cerevisiae* for improving terpenoid production» (poster)

*F. A. Trikka, C. Ignea, A. Athanasakoglou, A. Nikolaidis, A. Argiriou, D. Bozic, SC. Kampranis, AM Makris*

- **11th International Meeting on Biosynthesis, Function & Biotechnology of Isoprenoids in Terrestrial & Marine Organisms, TERPNET 2013;**

«Positive Genetic Interactors of HMG2 identify a new set of genetic perturbations for improving sesquiterpene production in *Saccharomyces cerevisiae*.» (poster)

*C. Ignea, F. Trikka, I. Kourtzelis, A. Argiriou, A. Kanellis, SC Kampranis, AM Makris*

- **11th International Meeting on Biosynthesis, Function & Biotechnology of Isoprenoids in Terrestrial & Marine Organisms, TERPNET 2013;**

«Metatranscriptome analysis of the red algae *Laurencia microcladia* and preliminary characterization of its terpene biosynthetic pathways.» (poster)

*F. Trikka, K. Pasentsis, E. Ioannou, V. Roussis, SC Kampranis, AM Makris, A. Argiriou*

- **1st International conference on Advances in Biotechnology-Industrial Microbial Biotechnology, November 3-5, 2010, Thessaloniki, Greece,**

«Molecularly imprinted microparticles for histamine recognition» (oral)

*F.A. Trikka and D.A. Kyriakidis.*

- **33<sup>rd</sup> FEBS Congress & 11<sup>th</sup> IUBMB Conference: Biochemistry of Cell Regulation, June 28-July 3, 2008, Athens, Greece,** «Molecularly imprinted polymers that selectively recognize histamine». (poster)

*F. Trikka, K. Yoshimatsu, L. Ye, D.A. Kyriakidis*

- **5<sup>th</sup> Workshop on Nanosciences & Nanotechnologies, July 14-16, 2008, Thessaloniki, Greece;**

«Molecularly imprinted microparticles that selectively recognize histamine». (poster)

*F.A. Trikka, D.A. Kyriakidis*

- **10<sup>th</sup> International Congress on Amino Acids and Proteins (ICAAP), August 20-25, 2007, Kallithea, Greece**, «Selective recognition and separation of amino acids by molecularly imprinted polymers». (poster)

*F.A. Trikka, R.M. Papi, D.A. Kyriakidis*

- **3<sup>rd</sup> Workshop on Nanosciences & Nanotechnologies, July 12<sup>th</sup> 2006, Thessaloniki, Greece**; «Biomimetic polymeric nanoreceptors for selective recognition of biomolecules». (poster)

*F.Trikka, R.Papi, D.Kyriakidis*

- **20<sup>th</sup> Panhellenic Conference of Chemistry, 20-23 September 2005, Ioannina** «Encapsulation of *E.coli* BL21exHPNL cells in alginate beads of biotechnological interest». (oral)

*F.A. Trikka, R.M. Papi, D.A. Kyriakidis*

#### **D. Additional Information**

##### **28/03-13/04 2014**

Training course on the Standard EN ISO/IEC 17025:2005, A. U. Th. A.Π.Θ., 56 hours.

- **14-17/03 2013**

Training course on «Instrumentation, Techniques and Applications of Flexar HPLC», Antisel S.A. & Perkin Elmer Life and Analytical Sciences, Sales and Service Technical Training Department.

- **10-12/09 2013**

Training course on «Instrumentation and Applications of GCMS-QP2010 Ultra with MS detector and Flame Ionization Detector (FID) of Shimadzu, », N. Asteriadis, A.C.