PERSONAL INFORMATION

Family name / First name: **Tsikou Daniela**

Address: Papanastasiou 68, Larissa, Greece
E-mail: dtsikou@bio.uth.gr, tsikoudaniela@gmail.com

EDUCATION

Oct. 1997 – Jul. 2002
BSc in Agriculture
Department of Agriculture, Aristotle University of Thessaloniki, Greece

Nov. 2002 – Jul. 2004
MSc in Agricultural Biotechnology
Department of Agricultural Biotechnology, Agricultural University of Athens, Greece

Jan. 2006 – Jan. 2010
PhD in molecular plant-microbe interactions
Laboratory of Molecular Biology, Department of Agricultural Biotechnology, Agricultural University of Athens, Greece
PhD thesis: "Characterization and biochemical role of the genes involved in carbon metabolism in *Lotus japonicus* nodules"

CURRENT POSITION

May 2019 – present
Assistant Professor in Molecular and Developmental Plant Biology
Department of Biochemistry and Biotechnology, University of Thessaly, Greece

PREVIOUS POSITIONS

Sep. 2004 – Jan. 2006 (1 year and 4 months)
Research Assistant. Laboratory of Insect Molecular Genetics and Biotechnology, Institute of Biology, National Centre for Scientific Research "Demokritos", Greece

Mar. 2010 - Aug. 2010 (6 months)
Post-doc. Laboratory of Plant Virology, Department of Sustainable Agriculture, Mediterranean Agronomical Institute of Chania, Greece

Oct. 2010 – Jul. 2013 (3 academic years)
Lecturer under contract. Department of Biochemistry and Biotechnology, University of Thessaly, Greece

Dec. 2013 – Feb. 2015 (1 year and 2 months)
Post-doc. Plant and Environmental Biotechnology Laboratory, Department of Biochemistry and Biotechnology, University of Thessaly, Greece

Mar. 2015 – Mar. 2017 (2 years)
Post-doc. Centre for Carbohydrate Recognition and Signalling (CARB), Department of Molecular Biology and Genetics, Aarhus University, Denmark.

Apr. 2017 – Feb. 2019 (1 year and 10 months)
Post-doc. Plant and Environmental Biotechnology Laboratory, Department of Biochemistry and Biotechnology, University of Thessaly, Greece.

VISITING RESEARCHER

John Innes Centre, Department of Metabolic Biology, Norwich, UK. 2008 (1 month)

University of Poitiers, Bâtiment Botanique, Poitiers, France. 2008 (15 days)

Department of Plant Systems Biology, Technical University of Munich, Freising, Germany. 2012 (20 days) & 2013 (1 month)

Centre for Carbohydrate Recognition and Signalling (CARB), Department of Molecular Biology, Aarhus University, Denmark. 2013 (2 months) & 2014 (1 month)

TEACHING ACTIVITIES

Oct. 2008 – Dec. 2010
Technological Institute of Larissa, Greece
Laboratory courses: Biotechnology and Genetics

Sep. 2010 – Jul. 2014
Department of Biochemistry and Biotechnology, University of Thessaly, Greece
Courses: Molecular and Developmental Plant Biology, Plant Biotechnology, Plant Physiology

FELLOWSHIPS AND AWARDS

Scholarship for post-graduate studies, State Scholarship Foundation, Greece (2005)

STSM (short term scientific mission) fellowship, EU: Endophytes cost Action FR1103, for a 2-month visit to Aarhus University in Denmark (2013)

Fellowship for post-doctoral research, State Scholarship Foundation, Greece (2017)

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

Member, Hellenic Society of Biochemistry and Molecular Biology (2005)

Member, International Society for Molecular Plant-Microbe Interactions (2014)

LANGUAGES

Greek: native English: fluent French: basic

LIST OF PUBLICATIONS

1. Kalloniati C, **Tsikou D**, Lampiri V, Fotelli M, Rennenberg H, Chatzipavlidis I, Fasseas C, Katinakis P, Flemetakis E (2009) Characterization of a *Mesorhizobium loti* α-type carbonic anhydrase and its role in symbiotic nitrogen fixation. *Journal of Bacteriology* 191: 2593-2600

2. Fasseas MK, **Tsikou D**, Flemetakis E, Katinakis P (2010) Molecular and biochemical analysis of the beta class carbonic anhydrases in *Caenorhabditis elegans*. *Molecular Biology Reports* 37(6): 2941-50

3. Tsitoura P, Andronopoulou E, **Tsikou D**, Agalou A, Papakonstantinou MP, Kotzia GA, Labropoulou V, Swevers L, Georgoussi Z, Iatrou K (2010) Expression and membrane topology of *Anopheles gambiae* odorant receptors in lepidopteran insect cells. *PloS one* 5(11): e15428

4. Fasseas MK, **Tsikou D**, Flemetakis E, Katinakis P (2011) Molecular and biochemical analysis of the a-class carbonic anhydrases in *Caenorhabditis elegans*. *Molecular Biology Reports* 38(3): 1777-85

5. **Tsikou D**, Stedel C, Kouri ED, Udvardi MK, Wang TL, Katinakis P, Labrou NE, Flemetakis E (2011) Characterization of two novel nodule-enhanced α-type carbonic anhydrases from *Lotus japonicus*. *Biochimica et Biophysica Acta* 1814(4): 496-504

6. Fotelli MN, **Tsikou D**, Kolliopoulou A, Aivalakis G, Katinakis P, Udvardi MK, Rennenberg H, Flemetakis E (2011) Nodulation enhances dark CO_2 fixation and recycling in the model legume *Lotus japonicus*. *Journal of Experimental Botany* 62(8): 2959-71

7. Mathioudakis MM, Veiga R, Ghita M, **Tsikou D**, Medina V, Canto T, Makris AM, Livieratos IC (2012) Pepino mosaic virus capsid protein interacts with a tomato heat shock protein cognate 70. *Virus research* 163(1): 28-39

8. Shegani M, **Tsikou D**, Velimirovic A, Afifi H, Karayanni A, Gazivoda A, Manevski K, Manakos I, Livieratos IC (2012) *Citrus tristeza* virus on the island of Crete: a survey and detection protocol applications. *Journal of Plant Pathology* 94(1): 71-78

9. Nol N, **Tsikou D**, Eid M, Livieratos IC, Giannopolitis CN (2012) Shikimate leaf disc assay for early detection of glyphosate resistance in *Conyza canadensis* and relative transcript levels of EPSPS and ABC transporter genes. *Weed Research* 52: 233–241

10. **Tsikou D**, Kalloniati C, Fotelli MN, Nikolopoulos D, Katinakis P, Udvardi MK, Rennenberg H, Flemetakis E (2013) Cessation of photosynthesis in *Lotus japonicus* leaves leads to reprogramming of nodule metabolism. *Journal of Experimental Botany* 64(5):1317-32

11. Krokida A, Delis C, Geisler K, Garagounis C, **Tsikou D**, Peña-Rodríguez LM, Katsarou D, Field B, Osbourn AE, Papadopoulou KK (2013) A metabolic gene cluster in *Lotus japonicus* discloses novel enzyme functions and products in triterpene biosynthesis. *New Phytologist* 200(3):675-90

12. Tanou G, Minas IS, Karagiannis E, **Tsikou D**, Audebert S, Papadopoulou KK, Molassiotis A (2015) The impact of sodium nitroprusside and ozone in kiwifruit ripening physiology: a combined gene and protein expression profiling approach. *Annals of Botany* 116(4):649-62

13. Delis C, Krokida A, Tomatsidou A, **Tsikou D**, Beta RA, Tsioumpekou M, Moustaka J, Stravodimos G, Leonidas DD, Balatsos NA, Papadopoulou KK (2016) AtHESPERIN: A Novel Regulator of Circadian Rhythms with Poly(A)-degrading Activity in Plants. *RNA biology* 13(1): 68-82

14. Katsarou D, Omirou M, Liadaki K, **Tsikou D**, Delis C, Garagounis C, Krokida A, Zambounis A, Papadopoulou KK (2016) Glucosinolate biosynthesis in *Eruca sativa*. *Plant Physiology and Biochemistry* 109:452-466

15. **Tsikou D**, Yan Z, Holt DB, Abel NB, Reid DE, Madsen LH, Bhasin H, Sexauer M, Stougaard J, Markmann K (2018) Systemic control of legume susceptibility to rhizobial infection by a mobile microRNA. *Science* 362:233-236

16. **Tsikou D**, Ramirez EE, Psarrakou IS, Wong JE, Jensen DB, Isono E, Radutoiu S, Papadopoulou KK (2018) A *Lotus japonicus* E3 ligase interacts with the Nod factor receptor 5 and positively regulates nodulation. *BMC Plant Biology* 18:217

17. Garagounis C, **Tsikou D**, Plitsi PK, Psarrakou IS, Avramidou M, Stedel C, Anagnostou M, Georgopoulou ME, Papadopoulou KK (2018) Lotus Shaggy-like Kinase 1 is required to suppress nodulation in *Lotus japonicus*. *Plant Journal* doi: 10.1111/tpj.14207

ANNOUNCEMENTS IN CONFERENCES

Oral presentations:

1. Iatrou K, Agalou M, Andronopoulou E, Douris V, Eliopoulos E, Georgoussi Z, Koussis K, Labropoulou V, Swevers L, **Tsikou D**, Tsitoura P (2009) Mosquito olfaction as target for malaria control. *60th Meeting, Hellenic Society of Biochemistry and Molecular Biology*, November 20-22, Athens, Greece

2. **Tsikou D**, Yan Z, Abel NB, Holt DB, Ried DE, Stougaard J, Markmann K (2016) A micro RNA acts as a signal in systemic control of nodulation symbiosis. *12th European Nitrogen Fixation Conference*, August 25-28, Budapest, Hungary

3. **Tsikou D**, Ramirez EE, Psarrakou IS, Wong JE, Jensen DB, Isono E, Radutoiu S, Papadopoulou KK (2017) An E3 ligase ubiquitinates the Nod factor receptor 5 and regulates nodule formation in legume-rhizobia symbiosis. *68th Meeting, Hellenic Society of Biochemistry and Molecular Biology*, November 10-12, Athens, Greece

4. **Tsikou D**, Yan Z, Holt DB, Abel NB, Reid DE, Madsen LH, Sexauer M, Bhasin H, Stougaard J and Markmann K (2018) A micro RNA acts as a systemic mediator of symbiotic susceptibility. *13th European Nitrogen Fixation Conference*, August 18-21, Stockholm, Sweden

5. **Tsikou D**, Yan Z, Holt DB, Abel NB, Reid DE, Madsen LH, Sexauer M, Bhasin H, Stougaard J and Markmann K (2018) A mobile microRNA acts as a systemic mediator of legume susceptibility to rhizobial infection. *69th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* November 23-25, Larissa, Greece

Posters:

1. Andronopoulou E, Labropoulou V, Douris V, **Tsikou D**, Iatrou K (2005) Identification of antennal proteins interacting with odorant binding proteins of the malaria mosquito vector *Anopheles Gambiae. 27th Scientific Conference, Hellenic Society for Biological Sciences*, 12-14 May, Nafplio, Greece.

2. Douris V, **Tsikou D**, Stefanou D, Labropoulou V, Swevers L, Iatrou K (2005) *LEPCELL EXPRESS*: A modular insect cell-based expression platform for multiple biotechnological applications. *27th Scientific Conference, Hellenic Society for Biological Sciences*, 12-14 May, Nafplio, Greece.

3. Douris V, Andronopoulou E, **Tsikou D**, Morou E, Balatsos N, Labropoulou V, Swevers L, Georgoussi Z, Iatrou K (2005) Multiple biotechnological applications of *LEPCELL EXPRESS*, a molecular insect cell-based expression system. *57th Meeting, Hellenic Society of Biochemistry and Molecular Biology*, Athens, Greece.

4. **Tsikou D**, Douris V, Andronopoulou E, Labropoulou V, Swevers L, Georgoussi Z, Iatrou K (2006) Cloning of *Anopheles gambiae* antennal odorant receptors and functional expression in silkmoth cells. *The 5th International Symposium on Molecular Insect Science*, May 20-24, Tucson, Arizona, USA.

5. **Tsikou D**, Efrose RC, Kalliampakou K, Stedel C, Udvardi MK, Katinakis P, Flemetakis E (2006) Molecular and biochemical characterization of *Lotus japonicus* nodule specific α-type carbonic anhydrases. *7th European Nitrogen Fixation Conference*, July 22-26, Aarhus, Denmark

6. Kalloniati C, Lampiri V, Fotelli MN, **Tsikou D**, Chatzipavlidis J, Katinakis P, Flemetakis E (2006) Molecular and biochemical characterization of *Mesorhizobium* a-type carbonic anhydrase provides evidence for a link between CO_2 hydration and nitrogen fixation. *58th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* Patra, Greece.

7. Fasseas M, **Tsikou D**, Flemetakis E, Katinakis P (2007) Molecular and biochemical characterization of carbonic anhydrases in *Caenorhabditis elegans*. *59th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* December 7-9, Athens, Greece.

8. **Tsikou D**, Ott T, Krombas P, Udvardi MK, Katinakis P, Flemetakis E (2007) A real-time RT-PCR based platform for gene expression studies during symbiotic nitrogen fixation in *Lotus*

japonicus. *59th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* December 7-9, Athens, Greece.

9. **Tsikou D**, Fotelli MN, Nikolopoulos D, Koliopoulou A, Katinakis P, Flemetakis E (2007) Dark CO_2 fixation in symbiotic nodules: A job for carbonic anhydrases? *59th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* December 7-9, Athens, Greece.

10. Andronopoulou E, **Tsikou D**, Kotzia G, Laspi V, Efrose RC, Labropoulou V, Swevers L, Georgoussi Z, Iatrou K (2007) Cell-based high throughput screening platforms for identification of odorant mimetics for the malaria mosquito vector, *Anopheles gambiae*. *59th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* December 7-9, Athens, Greece.

11. Fasseas MK, **Tsikou D**, Flemetakis E, Katinakis P (2009) Further molecular and biochemical characterization of carbonic anhydrases in *Caenorhabditis elegans*. *60th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* November 20-22, Athens, Greece.

12. Fragogeorgi G, Flemetakis E, **Tsikou D**, Dimou M, Aivalakis G, Katinakis P (2009) Δ-1-pyrroline-5-carboxylate synthetase gene expression in two durum wheat cultivars differing in their salinity tolerance. *60th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* November 20-22, Athens, Greece.

13. **Tsikou D**, Udvardi MK, Wang T, Katinakis P, Flemetakis E (2009) Effects of photosynthetic carbon limitation caused by extended dark in nodule metabolism in *L. japonicus*. *60th Meeting, Hellenic Society of Biochemistry and Molecular Biology,* November 20-22, Athens, Greece.

14. Krokida A, Delis C, Garagounis C, Katsarou D, Field B, **Tsikou D**, Geisler K, Peña-Rodríguez LM, Osbourn AE, Papadopoulou KK (2011) A biosynthetic gene cluster for triterpenes in legumes. *TERPNET, 10th international meeting: biosynthesis and function of isoprenoids in plants, microorganisms and parasites,* May 22-26, Kalmar, Sweden

15. Krokida A, Delis C, Geisler K, Garagounis C, **Tsikou D**, Peña-Rodríguez LM, Katsarou D, Field B, Osbourn AE, Papadopoulou KK (2013) Biosynthetic gene clusters for triterpenes in legumes. *TERPNET, 11th international meeting on biosynthesis, function and biotechnology of isoprenoids in terrestrial and marine organisms,* June 1-5, Kolymvari, Crete, Greece

16. **Tsikou D**, Ramirez EE, Psarrakou IS, Isono E, Schwechheimer C, Radutoiu S, Papadopoulou KK (2014) The involvement of an U-box E3 ubiquitin ligase from *Lotus japonicus* in the interaction with symbiotic microbes. *XVI IS-MPMI Congress*, July 6-10, Rhodes, Greece

17. **Tsikou D**, Tsiknia M, Nikolaou CN, Papadopoulou KK, Ehaliotis C (2018) Does rhizobium interact with arbuscular mycorrhizal fungi during legume root colonization? 13th European Nitrogen Fixation Conference, August 18-21, Stockholm, Sweden

18. **Tsikou D**, Tsiknia M, Nikolaou CN, Papadopoulou KK, Ehaliotis C (2018) Interaction between rhizobia and arbuscular mycorrhizal fungi during the establishment of symbioses in

legume roots. 69th Panhellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology, November 23-25, Larissa, Greece

19. **Tsikou D**, Tsiknia M, Nikolaou CN, Papadopoulou KK, Ehaliotis C (2019) Arbuscular mycorrhizal fungi and rhizobia interactions during the colonization of the same legume root. 4th International Molecular Mycorrhiza Meeting, February 6-8, Torino, Italy