

Curriculum Vitae, Ariadne Loukia Hager-Theodorides

Personal information

Work Address: Iera Odos 75, 11855 Athens, Greece

Work phone number: +30 210 529 4453

e-mail address: a.hager@aua.gr

Research gate: https://www.researchgate.net/profile/Ariadne_Hager-Theodorides

ORCID: <https://orcid.org/0000-0002-8480-3200>

Education

2002 **Ph.D.** Faculty of Biological Sciences, Imperial College London. Studies funded by State Scholarship Foundation of Greece (I.K.Y.).
Thesis title: "Study on the spreading of introduced transgenes through insect populations"
Supervisor: Prof. R.E. Sinden

1996 **Ptychion** in Agricultural Biology and Biotechnology, Agricultural University of Athens
(grade 7.47/10)

Current Employment

06/2010-today: Assistant Professor of *Gene Technology of Farm Animals*
Department of Animal Science, Laboratory of Animal Husbandry and Breeding,
Agricultural University of Athens

Teaching

Immunology, Principles and Methods of Farm Animal Breeding, Animal Biotechnology, Companion animals breeding

Academic responsibilities

-Erasmus+ coordinator for the dept of Animal Science

-Member of the Internal Evaluation Committee

-Vice-chair of the AUA Research Ethics Committee

-Member of the University's committee for Students with physical and learning disabilities.

Current research interests

Molecular genetics, genomics and transcriptomics related to productive and morphological traits in farm animals. Local farm animal and horse breed genetic characterization with molecular markers. Gene expression studies in farm animals.

Research Skills

Extensive laboratory experience in molecular biology analyses (nucleic acid isolation, quantitative PCR, STR fragment analyses, genotyping, cloning, transgenics), flowcytometry, immunophenotyping, cell sorting.

Competitive Grant attracted

▪ **The role of Gli3 in thymic epithelial cell differentiation and function.**

Role: Co-applicant with Tessa Crompton

Funding Body: Royal Society, UK, Funding: 12,000GBP Duration: 09/2010-09/2013

Participation in research grant as member of the research team

- **The effects of antioxidant's dietary supplementation on animal product quality.**

Funding Body: Hellenic State and European Union, General Secretariat for Research and Technology, project call Thalys.

Project Coordinator: Em. Prof. S. Deligeorgis

Role: Participation in writing of the scientific proposal, in particular author of the work package entitled «Effect of flavonoids on the expression of genes involved in lipid metabolism». Implementation of the latter work package.

Funding: 600.000€ Duration: 12/2011-09/2015

Research funding, non-competitive

- **Genetic analysis of Frizarta sheep for the estimation of genomic breeding values and Scrapied genetic susceptibility**

Funded by: Cooperative of the Agricultural and Livestock Union of Western Greece

Budget: 20.000€

Duration: 2020

- **Genotyping of Skyrian horses for parentage testing**

Funded by: Skyrian Horse Society

Budget: 4800€

Duration: 2020

- **Genotyping of Thessaly breed horses for parentage testing**

Funded by: Thessaly Horse Breeders Association

Budget: 11000€

Duration: 8/1/2014-31/5/2015

- **Genotyping of Skyrian horses for parentage testing**

Funded by: Skyrian Horse Society

Budget: 3000€

Duration: 4/11/2014-30/11/2015

Other funding attracted

Scientific Coordinator of Animal Science proposal for the **“Procurement of laboratory equipment for the advancement of the education provided by the Department of Animal Science and Aquaculture”**. Funding Body, Type of funding: Attica Regional Council, Regional Operational Program of Attica.

With this proposal the department of Animal Science acquired amongst else a next generation sequencing system (miSeq, Illumina) and a flow cytometer (FC500, Beckman Coulter).

Total funding approved: € 969,628

Erasmus+ educational grant, International credit mobility

Grant awarded for the academic exchange between University of Sao Paulo (USP), Brazil and AUA for the establishment of cooperation in the field of Animal Science. Awarded for academic year 2016-17.

Previous Employment

Postdoctoral Research Associate, Faculty of Biological Sciences, Imperial College London

01/2001-02/2007

Employed by a five-year MRC funded project and then a Wellcome Trust funded project entitled “The role of morphogens in T-cell development” and “The role of BMP2/4 in T-cell development” respectively. Principle Investigator: Dr Tessa Crompton. The publications produced are included in the “Published Work” section.

Postdoctoral Research Fellow, Immunobiology Unit, UCL/Institute for Child Health

02/2007-08/2007

Employed by a Wellcome Trust funded project entitled “The role of BMP2/4 in T-cell development”. Principle Investigator: Prof Tessa Crompton. The publications produced are included in the “Published Work” section.

Scientific advisor, Hellenic National Bioethics Commission

08/2007-06/2010

Job description: Advisory role for the members of the Commission, contact with the general public and State Officials regarding issues related to Bioethics, publication of the Commission’s monthly Newsletter, organization of a celebratory Conference marking the ten years of the Commission.

Language skills

- English, fluent (Proficiency in English as a foreign language, Cambridge University)
- French, good (Diplôme d’études françaises, 2e degré, Universités de Paris-Sorbonne)

Published Work

30 research articles published or in press since 2001. 843 citations in total. Personal h-index: 18 (scopus Sep. 2020). Author of two book chapters.

<https://orcid.org/0000-0002-8480-3200>

https://www.researchgate.net/profile/Ariadne_Hager-Theodorides

Research articles in peer reviewed journals

Tarsani, E., Kranis, A., Maniatis, G., Avendano, S., **Hager-Theodorides, A.L.**, Kominakis, A. Deciphering the mode of action and position of genetic variants impacting on egg number in broiler breeders **BMC Genomics**. 2020; 21(1):512

Neofytou MC, Miltiadou D, Sfakianaki E, Constantinou C, Symeou S, Sparaggis D, **Hager-Theodorides AL**, and Tzamaloukas O. The use of ensiled olive cake in the diets of Friesian cows increases beneficial fatty acids in milk and Halloumi cheese and alters the expression of SREBF1 in adipose tissue **Journal of Dairy Science**. 2020; 103(10), pp. 8998-9011.

Tarsani E, Kranis A, Maniatis G, (...), **Hager-Theodorides AL**, Kominakis A. Discovery and characterization of functional modules associated with body weight in broilers **Scientific Reports**. 2019; 9(1), 9125

Saridaki A, Antonakos G, **Hager-Theodorides AL**, (...), Bourtzis K, Kominakis A. Combined haplotype blocks regression and multi-locus mixed model analysis reveals novel candidate genes associated with milk traits in dairy sheep **Livestock Science**. 2019; 220, pp. 8-16

Goliomytis M, Simitzis P, Papalexi A, Veneti N, **Hager-Theodorides AL**, (...), Charismiadiou MA, Deligeorgis SG. Influence of citrus flavonoids on laying hen performance, inflammatory immune response, egg quality and yolk oxidative stability **British Poultry Science**. 2019; 60(3), pp. 272-278

Kominakis A, **Hager-Theodorides AL** *, Saridaki A, Antonakos G and Tsiamis G. Genome-wide population structure and evolutionary history of the Frizarta dairy sheep **Animal**. 2017; pp1-9. *Corresponding Author

Miltiadiou D[^], **Hager-Theodorides AL**[^], Symeou S, Constantinou C, Psifidi A, Banos G and Tzamaloukas O Variants in the 3' untranslated region of the ovine acetyl-coenzyme A acyltransferase 2 gene are associated with dairy traits and exhibit differential allelic expression **Journal of Dairy Science**. 2017, 100 (8): 6285-6297. [^] equal contribution

Kominakis A, **Hager-Theodorides AL**, Zoidis E, Saridaki A, Antonakos G and Tsiamis G Combined GWAS and 'guilt by association'-based prioritization analysis identifies functional candidate genes for body size in sheep **Genetics Selection Evolution**. 2017; 49 (1): 41

Mastranestasis I, Kominakis A, **Hager-Theodorides AL**, Ekateriniadiou LV, Ligda Ch and Theodorou K. Associations between genetic polymorphisms and phenotypic traits in the Lesvos breed **Small Ruminant Research**. 2016; 144: 205-210.

Goliomytis M, Tsipouzian T, **Hager-Theodorides AL**. * Effects of egg storage on hatchability, chick quality, performance and immunocompetence parameters of broiler chickens **Poultry Science**. 2015; 94 (9): 2257-65. * Corresponding author

Hager-Theodorides AL*, Goliomytis M, Delis S and Stelios Deligeorgis Effects of dietary supplementation with quercetin on broiler immunological characteristics **Animal Feed Science and Technology**. 2014; 198:224-30. * Corresponding author

Goliomytis M, Tsourekis D, Simitzis PE, Charismiadiou MA, **Hager-Theodorides AL**, Deligeorgis SG. The effects of quercetin dietary supplementation on broiler growth performance, meat quality and oxidative stability. **Poultry Science**. 2014; 93 (8): 1957-62.

Hager-Theodorides AL*, Ross SE, Sahni H, Mishina Y, Furmanski AL and Crompton T. Direct BMP2/4 signaling through BMP receptor IA regulates fetal thymocyte progenitor homeostasis and differentiation to CD4+CD8+ double-positive cell **Cell Cycle**. 2014; 13(2): 324-33. *Corresponding author

Simitzis PE, Kalogeraki E, Goliomytis M, Charismiadiou MA, Triantaphyllopoulos K, Ayoutanti A, Niforou K, **Hager-Theodorides AL**, Deligeorgis SG. Impact of stocking density on broiler growth performance, meat characteristics, behavioural components and indicators of physiological and oxidative stress. **British Poultry Science**. 2012;53(6):721-30.

Drakopoulou E, Outram SV, Rowbotham NJ, Ross SE, Furmanski AL, Saldana JI, **Hager-Theodorides AL** and Crompton T. Non-redundant role for the transcription factor Gli1 at multiple stages of thymocyte development. **Cell Cycle**. 2010 Oct 15;9(20):4144-52.

Hager-Theodorides AL, Furmanski AL, Ross SE, Outram SV, Rowbotham NJ and Tessa Crompton The Gli3 transcription factor expressed in the thymus stroma controls thymocyte negative selection via Hedgehog-dependent and -independent mechanisms. **Journal of Immunology**. 2009 Sep 1;183(5):3023-32.

Nicola J. Rowbotham, **Ariadne L. Hager-Theodorides**, Anna L. Furmanski, Susan E. Ross, Susan V. Outram, Johannes T. Dessens and Tessa Crompton Sonic hedgehog negatively regulates pre-TCR induced differentiation by a Gli2 dependent mechanism. **Blood**. 2009 May 21;113(21):5144-56.

Susan V. Outram *, **Ariadne L. Hager-Theodorides** *, Divya K. Shah *, Nicola J. Rowbotham, Ekati Drakopoulou, Susan E. Ross, Beate Lanske, Johannes T. Dessens and Tessa Crompton Indian

hedgehog (Ihh) both promotes and restricts thymocyte differentiation. **Blood**. 2009 Mar 5;113(10):2217-28. *equal contribution

Susan V Outram, Adele R Gordon, **Ariadne L. Hager-Theodorides**, Tessa Crompton and Paul R. Kemp KLF13 influences multiple stages of both B and T cell development **Cell Cycle**. 2008 Jul 1;7(13):2047-55.

Nicola J Rowbotham, Anna L Furmanski, **Ariadne L Hager-Theodorides**, Susan E Ross, Ekati Drakopoulou, Costas Koufaris, Susan V Outram, Tessa Crompton Repression of Hedgehog signal transduction in T-lineage cells increases TCR-induced activation and proliferation **Cell Cycle**. 2008 Apr; 7(7):904-8.

Gordon AR, Outram SV, Keramatipour M, Goddard CA, Colledge WH, Metcalfe JC, **Hager-Theodorides AL**, Crompton T, Kemp PR. Splenomegaly and modified erythropoiesis in KLF13-/- mice **Journal of Biological Chemistry**. 2008 May 283(18): 11897-11904.

Rowbotham NJ, **Hager-Theodorides AL**, Furmanski AL, Crompton T. A novel role for Hedgehog in T-cell receptor signaling: implications for development and immunity **Cell Cycle**. 2007 Sep 1;6(17):2138-42.

Crompton T, Outram SV, **Hager-Theodorides AL** Sonic hedgehog signalling in T-cell development and activation **Nature Reviews Immunology**. 2007 Sep;7(9):726-35.

Hager-Theodorides AL, Rowbotham NJ, Outram SV, Dessens JT, Crompton T. Beta-selection: abundance of TCRbeta-/gammadelta- CD44- CD25- (DN4) cells in the foetal thymus **European Journal of Immunology**. 2007 Feb;37(2):487-500.

Rowbotham NJ, **Hager-Theodorides AL**, Cebecauer M, Shah DK, Drakopoulou E, Dyson J, Outram SV, Crompton T. Activation of the Hedgehog signaling pathway in T-lineage cells inhibits TCR repertoire selection in the thymus and peripheral T-cell activation **Blood**. 2007 May 1;109(9):3757-66.

Hager-Theodorides AL, Dessens JT, Outram SV, Crompton T. The transcription factor Gli3 regulates differentiation of fetal CD4- CD8- double-negative thymocytes **Blood**. 2005 Aug 15;106(4):1296-304.

Shah DK, **Hager-Theodorides AL**, Outram SV, Ross SE, Varas A, Crompton T. Reduced thymocyte development in sonic hedgehog knockout embryos **Journal of Immunology**. 2004 Feb 15;172(4):2296-306.

Varas A, **Hager-Theodorides AL**, Sacedón R, Vicente A, Zapata AG, Crompton T. The role of morphogens in T-cell development **Trends in Immunology**. 2003 Apr;24(4):197-206. Review.

Hager-Theodorides AL, Outram SV, Shah DK, Sacedon R, Shrimpton RE, Vicente A, Varas A, Crompton T. Bone morphogenetic protein 2/4 signaling regulates early thymocyte differentiation **Journal of Immunology**. 2002 Nov 15;169(10):5496-504.

Tomas AM, Margos G, Dimopoulos G, van Lin LH, de Koning-Ward TF, Sinha R, Lupetti P, Beetsma AL, Rodriguez MC, Karras M, **Hager A**, Mendoza J, Butcher GA, Kafatos F, Janse CJ, Waters AP, Sinden RE. P25 and P28 proteins of the malaria ookinete surface have multiple and partially redundant functions **EMBO Journal**. 2001 Aug 1;20(15):3975-83.

International conferences (peer reviewed)

Eirini Tarsani, Andreas Kranis, Gerasimos Maniatis, Santiago Avendano, **Ariadne Hager-Theodorides**, and Antonios Kominakis.

Fine-mapping additive and dominant SNP effects impacting on egg number in female Broilers

XI European Symposium on Poultry Genetics, Prague, Czech Republic, 23-25 October 2019

Cotou, E., Fountoulaki, E., **Hager-Theodorides, A.L.**, Theodorou, G., Tsertou, M., Loukanari T., Katharios, P. and Ch. Kounna.

The effects of dietary inclusions of vitamin D3 associated to CYP27A1, antioxidant enzymes and non-infectious systemic granulomatosis in meagre (*Argyrosomus regius*)

International Symposium on Fish Nutrition and Feeding, Sun Valley, Idaho, USA, 5-10 June 2016

Oral presentation, Nutrition and Health section

Ariadne L. Hager-Theodorides, Nina A. Dragona, Katerina Moschou, Christina Kappou, Ilias Arkoumanis, Michael Goliomytis, Maria Charismiadou, Panagiotis Simitzis, Theofilos Massouras and Stelios Deligeorgis

Effect of dietary supplementation of broiler chickens with the natural antioxidants hesperidin and naringin on the expression of lipogenesis related genes and fatty acid profile

6th International Symposium on Animal Functional Genomics, Piazenza, Italy, 27-29 July 2015

Poster presentation, section TRANSCRIPTOMICS - Abstract N° 64

Constantina Constantinou, **Ariadne L. Hager-Theodorides** and Despoina Miltiadou

A single nucleotide polymorphism in the 3' untranslated region of the Acetyl-coenzyme A acyltransferase gene modifies gene expression in ovine liver and mammary gland

IDF 7th International Symposium on Sheep, Goat and other non-Cow Milk, Limassol, Cyprus, 23-25 March 2015

Poster presentation

Constantina Constantinou, Despoina Miltiadou and **Ariadne L. Hager-Theodorides**

Investigation of allelic expression imbalance of the ovine ACAA2 gene in liver and mammary gland

IDF 7th International Symposium on Sheep, Goat and other non-Cow Milk, Limassol, Cyprus, 23-25 March 2015

Poster presentation

Book Chapters

Hager-Theodorides AL, 2011 'Biobanking in Greece'. In: Caenazzo L, Pegoraro E, ed. Biobanks in the Mediterranean area. Procurement, storage and transfer of tissue and cells for non clinical purposes in the Easter Mediterranean Area: legal and ethical perspectives Padova. PROGET Edizioni, p.59-65, ISBN 978-88-88785-25-7

Outram SV, **Hager-Theodorides AL**, Crompton T, 2006

Hedgehog signalling in T lymphocyte development. p 107-115

in *Shh and Gli signalling and development*, Fisher CE, Howie SEM (eds), 158 p. Georgetown, Tex.