# Personal information

| Name:                    | Eleni Douni      |
|--------------------------|------------------|
| Gender:                  | Female           |
| Date and place of birth: | 1/8/1969, Athens |
| Citizenship:             | Greek            |

## Education and degrees awarded

| 1992-1998 | Ph.D. in Molecular Genetics. Thesis on "Studying the gene expression and                                   |
|-----------|--|
|           | biological role of Tumor Necrosis Factor (TNF) and its receptor p75 in transgenic                          |
|           | mice". Department of Biology, University of Athens, & Department of Molecular                              |
|           | Genetics-Hellenic Pasteur Institute, Athens, Greece  |
| 1987-1991 | Bachelor's degree in Biology, Department of Biology (First Class Honours),<br>University of Athens, Greece |

## Linguistic skils

Greek (Mother Tongue), English (Certificate of Proficiency in English)

## Current position

| Academic position: | Assistant Professor of Animal Biotechnology             |  |  |
|--------------------|---|--|--|
|                    | Laboratory of Genetics                                  |  |  |
|                    | Department of Biotechnology                             |  |  |
|                    | Agricultural University of Athens                       |  |  |
|                    | 75 Iera Odos, 11855, Athens Greece                      |  |  |
|                    | e-mail: douni@aua.gr; Tel. +30 210 5294372              |  |  |
| Affiliation:       | Associate Researcher, Division of Immunology,           |  |  |
|                    | Biomedical Sciences Research Center 'Alexander Fleming' |  |  |
|                    | 34 Fleming, Vari, 16672, Athens, Greece.                |  |  |
|                    | e-mail: douni@fleming.gr, Tel: +30 210 9656310 ext. 150 |  |  |

#### Previous work experience

| 2006-2011 | Researcher - Assistant Professor Level at the Institute of Immunology, B.S.R.C. |  |
|-----------|---|--|
|           | Fleming'  |  |
| 2005-2006 | Staff Research Scientist – Associate Professor Level, Institute of Immunology,  |  |
|           | B.S.R.C. 'Al. Fleming'  |  |
| 2001-2005 | Staff Research Scientist - Assistant Professor Level, Institute of Immunology,  |  |
|           | B.S.R.C. 'Al. Fleming'  |  |
| 2000-2001 | Postdoctoral fellow, Institute of Immunology, B.S.R.C. 'Al. Fleming'            |  |
| 1998-2000 | Postdoctoral fellow, Molecular Genetics Laboratory, Hellenic Pasteur Institute, |  |
|           | Athens Greece   |  |

#### **Technical Expertise**

- Generation and characterization of transgenic and knockout mice
- ENU mutagenesis and screening of novel phenotypes
- Genome- wide genetic analysis using polymorphic markers (SNPs & SSLPs).
- Advanced Molecular Biology practices
- Biochemistry, immunoprecipitation, production of recombinant proteins
- Mitochondria isolation and analysis
- Immunological assays
- Histopathological analysis of mouse tissues including CNS

• Tissue culture practices: Stable and transient transfection of immortalized cell lines; isolation and culture of primary cells

# Areas of Research Interests

- Functional Genetics for the identification of novel disease targets in mammals
- Study of the pathogenic role of mitochrondrial proteins SLC25 and DnaJC in neurological diseases
- Analysis of pathogenic mechanisms in mouse models of osteoporosis overexpressing human RANKL
- Development and biochemical characterization of novel RANKL inhibitors, evaluation in cellular assays and in our proprietary transgenic mouse model of RANKL-mediated osteoporosis

## Research funding

| Agency/No: | GSRT, Hellenic Ministry of Education                                    | Duration: 2014-2015 |
|------------|---|---------------------|
| Туре:      | ARISTEIA II grant (Excellence)  |                     |
| Title:     | DnaJmito – Role of DNAJC in mitochondrial cristae structure and modeled |                     |
|            | neuromuscular disease   |                     |
| Role:      | Coordinator   |                     |

| Agency/No: | European Commission   | Duration: 2012-2015 |  |
|------------|---|---------------------|--|
| Туре:      | ITN grant (11 participating institutions, PI: Prof. T. Kamradt)         |                     |  |
| Title:     | OSTEOIMMUNE – Unraveling the Interactions between the Immune System and |                     |  |
|            | Bone  |                     |  |
| Role:      | Co-Investigator   |                     |  |
| Agency/No: | Hellenic Ministry of Education  | Duration: 2012-2015 |  |
| Туре:      | "Thalis" grant (7 participating institutions, PI: Prof. A. Plaitakis)   |                     |  |
| Title:     | Mitochondrial Dysfunction in Neurodegenerative Disorders                |                     |  |
| Role:      | Co-Investigator   |                     |  |

- Agency/No:Hellenic Ministry of EducationDuration: 2012-2015Type:"Thalis" grant (8 participating institutions, PI: Prof. S. Zaoutsos)Title:Nanostructrured geopolymers and calcium phosphate based biocements and<br/>implants
- *Role:* Co-Investigator

 Agency/No:
 AMGEN, USA
 Duration: 2012-2013

 Type:
 Funded research protocol (3 participating institutions, PI: E. Douni)

 Title:
 Rescue of modeled osteoporosis with administration of anti-RANKL therapies in transgenic mice overexpressing human RANKL

 Role:
 Coordinator

Agency/No:Hellenic Ministry of EducationDuration: 2011-2014Type:National action "Cooperation" (6 part. institutions, PI: Dr G. Kollias)Title:From Targets to Leads: Innovative therapeutics for arthritisRole:Co-Investigator

 Agency/No:
 John S. Latsis Foundation
 Duration: 2010

 Type:
 Research project awarded for the Year 2010

 Title:
 Generation and analysis of a novel genetic model of osteoporosis in transgenic mice overexpressing human RANKL

 Role:
 Coordinator

| Agency/No: | European Commission NoE – LSHG-CT-2005-005203   |  |
|------------|---|--|
| Duration:  | 2005-2009   |  |
| Туре:      | Network of Excellence (24 participating labs, PI: Dr G. Kollias)  |  |
| Title:     | Integrated functional genomics in mutant mouse models as tools to investigate the complexity of human immunological disease (MUGEN) |  |
| Role:      | Co-Investigator   |  |
| Agency/No: | Hellenic Ministry for Development – ΕΠΑΝ 340  |  |
| Duration:  | 2005-2008   |  |
| Туре:      | Excellence in the Research Institutes   |  |
| Title:     | Research infrastructures of the Institute of Immunology of the BSRC Fleming   |  |
| Role:      | Co-Investigator   |  |
| Agency/No: | Hellenic Ministry for Development – 04AKMON72   |  |
| Duration:  | 2005-2008   |  |
| Туре:      | AKMON (PI: Dr G. Kollias)   |  |
| Title:     | Enhancement of services in transgenesis, on disease models and macromolecula  |  |
|            | analysis from laboratories of the BSRC Fleming  |  |
| Role:      | Co-Investigator   |  |

# Merits in teaching

- Teaching of Animal Biotechnology (theory and practicals to undergraduate students, 9<sup>th</sup> sem., AUA) (2005-present)
- Teaching of Evolution (theory to undergraduate students, 8<sup>th</sup> semester, AUA) (2012-present)
- Teaching of Genetics (theory and practicals to undergraduate students, 3<sup>th</sup> sem., AUA) (2012present)
- Invited lecturer at the post graduate Master course program organized by Medical School, University of Patras (2001-2009)
- Invited lecturer at Applied Physiology (post graduate Master course program, Medical School, University of Athens) (2010-present)
- Invited lecturer at Introduction of Research Methodology (post graduate Master course program, Medical School, University of Athens) (2010-present)
- Lecturer at Biotechnology and Applications in Agricultural Sciences (post graduate Master course program, Department of Agricultural Biotechnology, AUA) (2012-present)
- Diploma thesis supervision of 5 undergratuate students within my laboratory
- Supervisor of 4 Master Theses
- Supervisor of 6 Ph.D. Theses currently being performed in my laboratory

# Honors, awards, fellowships

- 1987-1991 Undergraduate fellowships, each year, Greek Governmental Institute of Scholarships
- 1993-1996 Ph.D. Fellowship, Bodosaki Foundation
- 1998-2000 Postgraduate fellowship, Molecular Genetics Laboratory, Hellenic Pasteur Institute, Athens Greece
- 2008-2010 National representative participating in FELASA (Federation of European Laboratory Animal Science Associations) working group for "refinement of methods for genotyping of genetically modified rodents", 2008-2010 (www.felasa.eu/working groups)
- 2010 Award for the study "A novel genetic model of osteoporosis by overexpression of human RANKL in transgenic mice" presented by Niti A, Dacquin R, Rinotas V, Jurdic P, Douni E, at the 24<sup>th</sup> International Mammalian Genome Conference, Heraklion 17-20 October 2010.

2013 Award for the oral presentation "Novel osteoporosis models by overexpressing human RANKL in transgenic mice" by Rinotas V, Papadaki M, Dacquin R, Bonnet N, Jurdic P, Ferrari S, Douni E, at the 64<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology, 6-8 December 2013.

## Other academic merits

#### • Reviewer at international scientific journals

- Journal of Experimental Medicine
- Journal of Clinical Investigation
- European Journal of Immunology
- Annals of the Rheumatic Diseases
- Arthritis Research & Therapy
- Pharmacology
- Journal of Inflammation Research
- Clinical and Developmental Immunology
- Plos One
- Laboratory Investigation
- Frontiers in Inflammation
- ISRN Rheumatology

## • Grant evaluator of international funding bodies

- GIS-IBiSA French infrastructures
- Research Foundation Flanders Belgium (FWO)
- Third World Academy of Sciences, Trieste Italy

# • Member of scientific societies

- Hellenic Society of Biosciences
- Hellenic Society for the Study of Bone Metabolism
- European Calcified Tissue Society
- American Society for Bone and Mineral Research

# • Organization of conferences

- Member of the organizing and examination committee of the «International Course on Laboratory Animal Science» that takes place annually in B.S.R.C. "AI. Fleming" (2007-2011)

- Organizing member of the international «Workshop on Mouse Immune Phenotyping», 6-8 October 2009, Athens

- Member of the organizing committee of the 2<sup>nd</sup> Conference of Agricultural Biotechnology, October 2012, Athens

# • Academic responsible for the Erasmus Program at the Department of Biotechnology, Agricultural University of Athens

Scientific and societal impact of research

#### Publications in International Scientific Journals

Bibliometric data (Peer-reviewed publications: 25; Non-self Citations till December 2013: 1550)

- 1. Grell M, **Douni E**, Wajant H, Lohden M, Clauss M, Maxeiner B, Georgopoulos S, Lesslauer W, Kollias G, Pfizenmaier K, and Scheurich P. (1995). The transmembrane form of tumour necrosis factor (TNF) is the prime activating ligand of the 80 kDa TNF receptor. *Cell*, 83, 793-802.
- Douni E, Akassoglou K, Alexopoulou L, Georgopoulos S, Haralambous S, Hill S, Kassiotis G, Kontoyiannis D, Pasparakis M, Plows D, Probert L, and Kollias G. (1995). Transgenic and knockout analysis of the role of TNF in immune regulation and disease pathogenesis. *Journal of Inflammation*, 47, 27-38.
- 3. Probert L, Akassoglou K, Alexopoulou L, **Douni E**, Haralambous S, Hill S, Kassiotis G, Kontoyiannis D, Pasparakis M, Plows D, and Kollias G. (1996). Dissection of the pathologies induced by transmembrane and wild-type tumour necrosis factor in transgenic mice. *Journal of Leukocyte Biology*, 59, 518-525.
- 4. Pasparakis M, Alexopoulou L, **Douni E**, and Kollias G. (1996). Tumour necrosis factors in immune regulation: everything that's interesting is ... new! *Cytokine and Growth Factor Reviews*, 7, 223-229.
- Kusters S, Tiegs G, Alexopoulou L, Pasparakis M, Douni E, Kunstle G, Bluethmann H, Wendel A, Pfizenmaier K, Kollias G, and Grell M. (1997). In vivo evidence for a functional role of both tumor necrosis factor (TNF) receptors and transmembrane TNF in experimental hepatitis. *European Journal of Immunology*, 27, 2870-2875.
- *6.* **Douni E**, and Kollias G. (1998). A critical role of the p75TNF-R in organ inflammation independent of TNF, LTα or the p55 TNF-R. *Journal of Experimental Medicine*, 188, 1343-1352.
- 7. Kollias G, **Douni E**, Kassiotis G, and Kontoyiannis D. (1999). On the role of tumor necrosis factor and receptors in models of multiorgan failure, rheumatoid arthritis, multiple sclerosis and inflammatory bowel disease. *Immunological Reviews*, 169, 175-194.
- 8. Kollias G, **Douni E**, Kassiotis G, and Kontoyiannis D. (1999). The function of tumour necrosis factor and receptors in models of multi-organ inflammation, rheumatoid arthritis, multiple sclerosis and inflammatory bowel disease. *Ann. Rheum. Dis.*, 58, 132-139.
- 9. Holtmann M, **Douni E**, Schutz M, Mudter J, Lehr H, Gerspach J, Scheurich P, Galle P, Kollias G. and Neurath M. (2002). TNF-R2 is upregulated on lamina propria mononuclear cells in Crohn's disease and promotes experimental colitis in vivo. *European Journal of Immunology*, 32:3142-3151.
- Akassoglou K, Douni E, Bauer J, Lassmann H, Kollias G, and Probert L. (2003). The p75TNF Receptor Independently Signals Pro-inflammatory Effects of TNF at the CNS Vasculature and the Development of Spontaneous Inflammatory Ischaemia in Transgenic Mice. *PNAS*, 100:709-714.
- 11. **Douni E**, Sfikakis P, Haralambous S, Fernandez P, and Kollias G. (2004). Attenuation of inflammatory polyarthritis in TNF transgenic mice by diacerein: comparative analysis with dexamethasone, methotrexate and anti-TNF protocols. *Arthritis Research & Therapy*, 6(1):R65-R72.
- 12. Thwin MM, Douni E, Aidinis V, Kollias G, Kodama K, Sato K, Satish RL, Mahendran R, and Gopalakrishnakone P. (2004). Effect of Phospholipase A2 Inhibitory Peptide on Inflammatory Arthritis in a TNF Transgenic Mouse Model: A Time Course Ultrastructural Study. Arthritis Research & Therapy, 6(3):R282-94.

- Alexopoulou L, Kranidioti K, Xanthoulea S, Denis M, Kotanidou A, Douni E, Blackshear PJ, Kontoyiannis DL, and Kollias G. (2006). Transmembrane TNF protects mutant mice against intracellular bacterial infections, chronic inflammation and autoimmunity. *European Journal of Immunology*, 36(10):2768-80.
- 14. Aidinis V, Chandras C, Manoloukos M, Thanassopoulou A, Kranidioti K, Armaka M, **Douni E**, Kontoyiannis DL, Zouberakis M, and Kollias G; Mugen NoE consortium. (2008). MUGEN mouse database; animal models of human immunological diseases. *Nucleic Acids Res*;36 D1048-54.
- 15. Thwin MM, **Douni E**, Arjunan P, Kollias G, Kumar PV, Gopalakrishnakone P. (2009). Suppressive effect of secretory phospholipase A2 inhibitory peptide on IL-1-β-induced matrix metalloproteinases production in rheumatoid synovial fibroblasts, and its antiarthritic activity in hTNFtg mice. *Arthritis Research & Therapy*; 11:R138.
- Morgan H, Beck T, Blake A, Gates H, Adams N, Debouzy G, Leblanc S, Lengger C, Maier H, Melvin D, Meziane H, Richardson D, Wells S, White J, Wood J; EUMODIC Consortium, de Angelis MH, Brown SD, Hancock JM, Mallon AM. (2010). EuroPhenome: a repository for highthroughput mouse phenotyping data. *Nucleic Acids Res*; 38:D577-85. (*Citations:*2, IF: 7.836)
- Douni E\*, Rinotas V, Makrinou E, Zwerina J, Penninger JM, Eliopoulos E, Schett G, Kollias G. (2012). A RANKL G278R mutation causing osteopetrosis identifies a functional amino acid essential for trimer assembly in RANKL and TNF. *Hum Mol Genet.*; 21(4):784-98. (IF: 8.05). (\*Corresponding author)
- 18. Papaneophytou CP, Mettou AK, Rinotas V, **Douni E**, Kondopidis GA. (2013). Solvent Selection for Insoluble Ligands, a Challenge for Biological Assay Development: A TNF- $\alpha$ /SPD304 Study. *ACS Med. Chem. Lett.*; 4 (1):137–141.
- Bonaparte D, Cinelli P, Douni E, Hérault Y, Maas A, Pakarinen P, Poutanen M, Lafuente MS, Scavizzi F. (2013). FELASA guidelines for the refinement of methods for genotyping geneticallymodified rodents: a report of the Federation of European Laboratory Animal Science Associations Working Group. *Lab Anim*; 47(3):134-45.
- 20. Papaneophytou CP, Rinotas V, **Douni E**, Kontopidis G. (2013). A statistical approach for optimization of RANKL overexpression in Escherichia coli: Purification and characterization of the protein. *Protein Expr Purif*; 90(1):9-19.
- Zoi OG, Thireou TN, Rinotas VE, Tsoungas PG, Eliopoulos EE, **Douni EK**, Labrou NE, Clonis YD. (2013) Designer Xanthone: An Inhibitor Scaffold for MDR-Involved Human Glutathione Transferase Isoenzyme A1-1. *J Biomol Screen*; 18(9):1092-102.
- Rinotas V, Niti A, Dacquin R, Bonnet N, Stolina M, Han CY, Kostenuik P, Jurdic P, Ferrari S, Douni
   E. (2013) Novel genetic models of osteoporosis by overexpression of human RANKL in transgenic mice. *J Bone Miner Res.* Oct 11. doi: 10.1002/jbmr.2112. [Epub ahead of print]

# **Book chapters**

 Kollias G, Kontoyiannis D, Douni E, Kassiotis G. (2002). The role of TNF/TNFR in organ-specific and systemic autoimmunity: implications for the design of optimized `anti-TNF` therapies. In *Curr. Dir. Autoimmun.*: Signal transduction pathways in autoimmunity, Eds. A. Theofilopoulos, Karger Press; 5:30-50.

- Douni E, Alexiou M, Kollias G. (2004). Genetic engineering in the mouse: Tuning TNF/TNFR expression. In *Methods in Molecular Medicine*: Tumor Necrosis Factor. Eds A. Corti and P. Ghezzi. Humana Press Inc; 98: p139-171.
- Douni E, Armaka M, Kontoyiannis DL, Kollias G. (2007). Functional genetic and genomic analysis of modeled arthritis. In *Adv Exp Med Biol*.: Osteoimmunology. Interactions of the Immune and Skeletal Systems. Ed Y Choi, Springer; 602:33-42.

# Abstracts in International Conferences (from 2004)

- 1. **Douni E**, Sekara E, Kamber M, Kontoyiannis D, Kollias G. (2004). Sensitized ENU mutagenesis screen in animal models of chronic inflammatory diseases. *Eumorphia annual meeting*. 5-7 October, London.
- Faggioni R, Babcook J, Douni E, Kang J, Schneider A, Manchulenko K, Rathanaswami P, Kollias G (2004). ABX10131: a fully human anti-human TNF mAb generated using XenoMouse<sup>®</sup> and XenoMax<sup>™</sup> technologies. *ICS and ICICR 5th Joint International Meeting*, October.
- 3. **Douni E**, Makrinou E, Mermelekas G, Giannakas N, Kollias G. (2005). A sensitized ENU mutagenesis screen for genetic modifiers of Rheumatoid Arthritis and Inflammatory Bowel Disease. 19<sup>th</sup> International Mouse Genome Conference. 4-8 November, Strasbourg, France. Abstract No O-15, p.58.
- 4. **Douni E,** Makrinou E, Kollias G. (2005). Genome wide analysis of sensitized ENU mutagenesis screens in animal models for arthritis and IBD, as a tool for drug target discovery. *Mutation detection workshop*. 31 May-4 June, Santorini.
- Douni E, Armaka M, Makrinou E, Kollias G. (2006). Functional genetic and genomic analysis of modeled arthritis and osteoclastogenesis. 1<sup>rst</sup> International Conference on Osteoimmunology: Interactions of the immune and skeletal systems. Aegean Conferences, May28-June2, Crete. Aegean Conference Series vol.22, Abstract No5.
- 6. **Douni E**, Armaka M, Makrinou E, and Kollias G. (2006). Functional genetic and genomic analysis of modeled arthritis and other bone diseases. *16<sup>th</sup> European Congress of Immunology*. September 6-9, Paris. Abstract No SC55-770.
- Beirnaert E, Lauwereys M, De Haard H, Casteels P, Jonckheere H, Spinelli S, Cambillau C, Douni E, Kollias G, Hoogenboom H, Dreier T. (2006). Superior efficacy of a format engineered antihuman TNFa nanobody in a transgenic mouse model (Tg197) of polyarthritis.16th European Congress of Immunology. September 6-9, Paris. Abstract No WD60-339.
- Kranidioti K, Alexopoulou L, Kranidioti K, Xanthoulea S, Denis M, Kotanidou A, Douni E, Blackshear PJ, Kontoyiannis DL, Kollias G. (2006). Transmembrane TNF protects mutant mice against intracellular bacterial infections, chronic inflammation and autoimmunity. 1<sup>rst</sup> International MUGEN Conference on animal models for human immunological disease. September 10-13, Athens. Abstract No 27.
- Douni E, Makrinou E, Giannakas N, Alexakos G, Kollias G. (2006). A sensitized ENU mutagenesis screen for genetic modifiers of Rheumatoid Arthritis and Inflammatory Bowel Disease. 1<sup>rst</sup> International MUGEN Conference on animal models for human immunological disease. September 10-13, Athens. Abstract No 44.

- Sotsios Y, Douni E, Kollias G. (2006). TNF-driven animal models of inflammatory disease: effective tools for pre-clinical in vivo evaluation of pharmaceuticals. 1<sup>rst</sup> International MUGEN Conference on animal models for human immunological disease. September 10-13, Athens. Abstract No 52.
- 11. **Douni E**, Makrinou E, Kollias G. (2007). Identification of a novel loss-of-function missense mutation in the RANKL gene using ENU mutagenesis. *21<sup>rst</sup> International Mouse Genome Conference*, 28 October-1 November, Kyoto Japan. Abstract No P108 p.144.
- Douni E, Makrinou E, Mermelekas G, Giannakas N, Kollias G. (2007). Identification of genetic modifiers using random mutagenesis in Rheumatoid Arthritis and Inflammatory Bowel Disease. 21<sup>rst</sup> International Mouse Genome Conference, 28 October-1 November, Kyoto Japan. Abstract No P109 p.144.
- 13. **Douni E**, Makrinou E, Kollias G. (2008). Identification of a novel loss-of-function missense mutation in the RANKL gene that causes osteopetrosis in mice. *35<sup>th</sup> European Symposium on calcified tissues*. 24-28 May, Barcelona Spain. Published in *Calcified Tissue International* vol 82, suppl. Abstract Mo-OP35 p.S57.
- 14. **Douni E**, Makrinou E, Zwerina J, Penninger JM, Schett G Kollias G. (2008). Identification and characterization of a novel loss-of-function missense mutation in the RANKL gene that causes osteopetrosis in mice. 2<sup>nd</sup> International Conference on Osteoimmunology: Interactions of the immune and skeletal systems. Aegean Conferences, June 8-13, Rhodes. Aegean Conference Series vol.35, Abstract No 62.
- 15. **Douni E,** Aidinis V, Kontoyiannis D, Graf D, Kollias G. (2009). Secondary immunological phenotyping using animal models for human inflammatory and autoimmune diseases: the MUGEN approach. *EUMODIC Annual Meeting*, March 2-4, Athens, Greece.
- 16. Niti A, Rinotas V, **Douni E**. (2009). A novel humanized RANKL transgenic mouse model of osteoporosis. *36<sup>th</sup> European Symposium on calcified tissues, 23-27 May, Vienna. Bone* vol44, no2 p.S423.
- Ioakeimidis F, Rinotas V, Makrinou E, Kollias G, Douni E. (2009). Characterization of a novel mouse model of autosomal recessive neuromuscular disease and lymphoid hypoplasia generated by ENU mutagenesis [MUGEN fellowship]. 4<sup>th</sup> ENII-MUGEN Immunology Summer School, 17-24 May, Capo Caccia, Sardinia.
- 18. Niti A, Rinotas V, **Douni E**. (2009). A novel genetic model of osteoporosis in transgenic mice expressing human RANKL. 2<sup>nd</sup> MUGEN Conference, 8-10 October, Athens.
- 19. Ioakeimidis F, Karakostas A, Rinotas V, Makrinou E, Kollias G, **Douni E**. (2009). A novel ENUinduced mouse model of autosomal recessive neuromuscular disease and lymphoid abnormalities. 2<sup>nd</sup> MUGEN Conference, 8-10 October, Athens.
- 20. Karakostas A, Ioakeimidis F, Rinotas V, Kollias G, **Douni E**. (2009). Identification of a new SLC25 member that causes autosomal recessive ataxia in ENU-mutagenized mice. 2<sup>nd</sup> MUGEN Conference, 8-10 October, Athens.
- 21. **Douni E,** Aidinis V, Kontoyiannis D, Graf D, Kollias G. (2010). Secondary immunological phenotyping using animal models for human inflammatory and autoimmune diseases. *EUMODIC Annual Meeting*, March 25-26, Brussels.

- 22. Karakostas A, Ioakeimidis F, Rinotas V, Kollias G, **Douni E**. (2010). Identification and characterization of a novel SLC25 member that causes autosomal recessive ataxia in mice. *EUMODIC Annual Meeting*, March 25-26, Brussels.
- 23. Niti A, Dacquin R, Rinotas V, Jurdic P, **Douni E**. (2010). Generation and analysis of a novel genetic model of osteoporosis:Human RANKL-expressing transgenic mice. 3<sup>rd</sup> International Conference on Osteoimmunology: Interactions of the immune and skeletal systems. Aegean Conferences, June 20-25, Santorini. Aegean Conference Series vol.49, Abstract No 65.
- 24. loakeimidis F, Rinotas V, Makrinou E, Kollias G, and **Douni E**. (2010).Identification of a novel member of the DnaJC family that causes neuromuscular disease in mice. Neuroscience days of the Hellenic Society for Neuroscience. 1-2 October, Athens.
- 25. Karakostas A, loakeimidis F, Rinotas V, Kollias G, **Douni E**. (2010). Identification of a novel SLC25 member that causes autosomal recessive ataxia in ENU-mutagenized mice. Neuroscience days of the Hellenic Society for Neuroscience. 1-2 October, Athens.
- 26. Ioakeimidis F, Rinotas V, Makrinou E, Kollias G, **Douni E**. (2010). A forward genetics approach identifies a novel member of the DnaJC family that causes neuromuscular disease in mice. 24<sup>th</sup> International Mammalian Genome Conference. 17-21 October, Heraklion.
- 27. Karakostas A, loakeimidis F, Rinotas V, Kollias G, **Douni E**. (2010). Identification of a novel SLC25 member that causes autosomal recessive ataxia in ENU-mutagenized mice. 24<sup>th</sup> International Mammalian Genome Conference. 17-21 October, Heraklion.
- 28. Niti A, Dacquin R, Rinotas V, Jurdic P, **Douni E**. (2010). A novel genetic model of osteoporosis by overexpression of human RANKL in transgenic mice. 24<sup>th</sup> International Mammalian Genome Conference. 17-21 October, Heraklion.
- 29. Niti A, Dacquin R, Bonnet N, Rinotas V, Ferrari S, Jurdic P, **Douni E**. (2011). Novel genetic models of osteoporosis by overexpressing human RANKL in transgenic mice. *38<sup>th</sup> European Symposium on calcified tissues*, 7-11 May, Athens.
- 30. Ioakeimidis F, Rinotas V, Kollias G, **Douni E**. (2011). A novel member of the DNAJC family localized in mitochondria causes neuromuscular disease and immune abnormalities in mice. *Mitochondria dynamics: from mechanisms to disease*.11-15 September, Sardinia.
- 31. Niti A, Dacquin R, Bonnet N, Rinotas V, Ferrari S, Jurdic P and **Douni E**. (2011). Novel genetic models of osteoporosis in transgenic mice overexpressing human RANKL. *Final EUMODIC meeting*, 21-22 November, Geneva.
- 32. Ioakeimidis F, Rinotas V, Kollias G, **Douni E**. (2011). A novel member of the DNAJC family causes neuromuscular disease and immune abnormalities in mice. *Final EUMODIC meeting*, 21-22 November, Geneva.
- 33. Ioakeimidis F, Rinotas V, Fasseas C, Kollias G and **Douni E**. (2012). An ENU Forward Genetics Approach in Mice Identifies a Role of a Novel Mitochondrial DnaJC Protein in Mitochondrial Structure and Proper Neuromuscular Function. *Mitochondria in life, death and disease, FEBS/EMBO course*, 9-13 May, Crete Greece. [Selected oral presentation].
- 34. Kano T, Karakostas A, Ioakeimidis F, Rinotas V, Kollias G, and **Douni E**. (2012). A Novel SLC25 Member of Mitochondrial Carriers Causes Autosomal Recessive Neurological Disease in Mice. *Mitochondria in life, death and disease, FEBS/EMBO course,* 9-13 May, Crete Greece.

- 35. Niti A, Dacquin R, Bonnet N, Rinotas V, Ferrari S, Jurdic P and **Douni E**. (2012). Modeling osteoporosis in transgenic mice overexpressing human RANKL. 4<sup>th</sup> *International Conference on Osteoimmunology: Interactions of the immune and skeletal systems*. Aegean Conferences, June 18-21, Corfu Greece.
- 36. Rinotas V, Alexiou P, Papakyriakou T, Papaneophytou C, Kontopidis G, Couladouros E, Eliopoulos E, and **Douni E**. (2012). Development of novel therapeutic approaches targeting RANKL trimerization. 4<sup>th</sup> International Conference on Osteoimmunology: Interactions of the immune and skeletal systems. Aegean Conferences, June 18-21, Corfu Greece.
- 37. Rinotas V, Dacquin R, Bonnet N, Ferrari S, Jurdic P, Alexiou P, Papakyriakou T, Papaneophytou C, Kontopidis G, Couladouros E, Eliopoulos E, Douni E. 2012. Study of RANKL-mediated pathogenic mechanisms in mouse models and development of new therapeutic approaches. 5<sup>th</sup> International Workshop on Advances in the Molecular Pharmacology and Therapeutics of Bone Disease, 27-30 June Oxford, UK.
- 38. Violitzi F, Rinotas V, **Douni E**. (2012). Inhibition of BAFF trimerization with site-directed mutagenesis. 2<sup>nd</sup> Conference on Agricultural Biotechnology, 4-5 October, Athens.
- 39. Terzenidou M, Kano T, Karakostas A, Ioakeimidis F, Kollias G, **Douni E**. (2012). Studying the pathogenic role of a novel SLC25 mitochondrial carrier in a genetic mouse model of neurological disease. 2<sup>nd</sup> Conference on Agricultural Biotechnology, 4-5 October, Athens.
- 40. Rinotas V, Niti A, Kontopidis G, Couladouros E, Eliopoulos E, **Douni E**. (2012). Study of RANKLmediated pathogenic mechanisms in mouse models and development of new therapeutic approaches. 2<sup>nd</sup> Conference on Agricultural Biotechnology, 4-5 October, Athens.
- 41. Ioakeimidis F, Rinotas V, Fasseas C, Kollias G, **Douni E**. (2012). Identification of the role of DNAJC in mitochondrial structure and neuromuscular function in mice. 2<sup>nd</sup> Conference on Agricultural Biotechnology, 4-5 October Athens.
- 42. loakeimidis F, Rinotas V, Fasseas C, Kollias G, **Douni E**. (2012). DnaJC11 is involved in mitochondrial cristae structure and neuromuscular disease in mice. Neuroscience Days, 2-3 November, Athens.
- 43. Terzenidou M, Kano T, Karakostas A, Ioakeimidis F, Kollias G, **Douni E**. (2012). A nonsense mutation in a novel SLC25 family gene of mitochondrial carriers causes severe recessive neurological disease in mice. Neuroscience Days, 2-3 November, Athens.
- 44. Rinotas V, Violitzi F, Alexiou P, Liepouri F, Maranti A, Tsiliouka K, Strongilos A, Papakyriakou T, Papaneophytou C, Kontopidis G, Couladouros E, Eliopoulos E, **Douni E**. (2013). Novel SPD304-like inhibitors targeting trimerization of human RANKL. 5<sup>th</sup> International BBBB Conference "From Drug Discovery and Formulation Strategies to Pharmacokinetics-Pharmacodynamics", 26-28 September, Athens.
- 45. Rinotas V, Niti A, Dacquin R, Bonnet N, Ferrari S, Jurdic P, **Douni E**. (2013). Novel models of osteoporosis in transgenic mice overexpressing human RANKL. ASBMR Annual Meeting, 4-7 October, Baltimore, USA.
- 46. Rinotas V, Violitzi F, Alexiou P, Liepouri F, Maranti A, Tsiliouka K, Strongilos A, Papakyriakou T, Papaneophytou C, Kontopidis G, Couladouros E, Eliopoulos E, **Douni E**. (2013) Novel human RANKL inhibitors targeting its trimerization. ASBMR Annual Meeting, 4-7 October, Baltimore, USA.

- 47. Terzenidou M, Kano T, Karakostas A, Ioakeimidis F, Kollias G, **Douni E**. (2013). Identification of a novel SLC25 family member of mitochondrial carriers causing recessive neurological disease in mice. 64<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology, 6-8 December 2013.
- 48. Rinotas V, Papadaki M, Dacquin R, Bonnet N, Jurdic P, Ferrari S, **Douni E**. (2013). Novel osteoporosis models by overexpressing human RANKL in transgenic mice. 64<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology, 6-8 December 2013.
- 49. Terzenidou M, Kano T, Karakostas A, Ioakeimidis F, Kollias G, **Douni E**. (2013). A novel SLC25 family member of mitochondrial carriers causes severe recessive neurological disease in mice. 64<sup>th</sup> Congress of the Hellenic Society of Biochemistry and Molecular Biology, 6-8 December 2013.

## Invited Speaker (from 2004)

**2004.** "Transgenic and knockout systems in Immunology". Hellenic Society of Immunology. Seminar in Immunology 20<sup>th</sup> cycle. 25 January, Athens, Greece.

**2004**. "Random mutagenesis in animal models of human immunological diseases for the discovery of new therapeutic targets". Hellenic Conference of Immunology. 8-11 December, Thessaloniki, Greece.

**2005**. "Anti-TNF and anti-IL-1 therapies: from mouse to human". Hellenic Conference of Pathology. 11-14 October, Athens, Greece.

**2006**. "Identification of disease targets using random ENU mutagenesis in animal models". 3<sup>rd</sup> International Biotechnological Conference. 5-7 October, Athens, Greece.

**2006**. "Novel approaches studying inflammation". 19<sup>th</sup> Hellenic Rheumatology Conference., 29Nov.-2 Dec., Athens, Greece.

**2006**. "Random ENU Mutagenesis". MUGEN Transgenesis Gene Targeted Mutagenesis Course. April 10-13, Athens, Greece.

**2007**. "ENU Mutagenesis". 1<sup>rst</sup> International Course on Laboratory Animal Science. 24 September-5 October, Athens, Greece.

**2007**. "Molecular Biology and genetically modified animal models". 1<sup>rst</sup> Hellenic Seminar of Experimental Biomedical Research. 11-14 December, Athens, Greece.

**2008**. "Identification and characterization of a novel loss-of-function missense mutation in the RANKL gene that causes osteopetrosis in mice". Institut de Génomique Fonctionnelle de Lyon, 6 May Lyon, France.

**2008**. "Functional Genomics for the understanding of pathophysiology in animal models". 14<sup>th</sup> Scientific Conference of Greek Medical School Students. 9-11 May, Athens, Greece.

**2008**. "Chronic inflammatory disease mechanisms and development of therapies". 28<sup>th</sup> European Section Meeting of the International Society for Heart Research. 28-31 May, Athens, Greece.

**2008**. "Forward Genetics". 2<sup>nd</sup> International Course on Laboratory Animal Science. 22 September-3 October, Athens, Greece.

**2008**. "The osteoblast, the osteoclast and osteoporosis". 64<sup>th</sup> Hellenic Orthopedic Conference. Round table: Osteoporosis today. 8-11 October, Athens, Greece.

**2008**. "Functional genomics to understand pathophysiology in animal models". 27<sup>th</sup> Congress of the International Academy of Pathology. 12-17 October, Athens, Greece.

**2008**. "Genetically modified animal models in Osteoimmunology". 2<sup>nd</sup> Hellenic Seminar of Experimental Biomedical Research. 20-22 November, Athens, Greece.

**2009**. "Forward genetics: a tool for the discovery of novel disease targets in Immunology". 2<sup>nd</sup> Immunology Summer School & Conference, 31 August-4 September, Kefalonia, Greece.

**2009**. "Forward Genetics as a tool for the identification of novel disease targets". Medical School, University of Crete, 6 July, Heraklion, Greece.

**2009**. "Genetic Standardization". 3<sup>rd</sup> International Course on Laboratory Animal Science. 21 September-2 October, Athens, Greece.

**2009**. "Forward Genetics". 3<sup>rd</sup> International Course on Laboratory Animal Science. 21 September-2 October, Athens, Greece.

**2009**. "Forward and Reverse Genetics". Workshop on Mouse Immune Phenotyping. 6-8 October, Athens, Greece.

**2009**. "Functional Genetics technologies in animal models". 1<sup>rst</sup> Hellenic Conference of Agricultural Biotechnology, 16-18 October, Athens, Greece.

**2009**. "Forward Genetics as a tool for the identification of novel disease targets". Institute of Biology. N.C.S.R. Demokritos, 5 November, Athens, Greece.

**2010**. "The role of RANKL in osteoimmunology and development of therapies in transgenic mice". Psoriasis and Arthritides, update and new perspectives. 23-24 January, Heraklion, Greece.

**2010**. "Transgenic mice overexpressing RANKL as a model of osteoporosis". 18<sup>th</sup> Hellenic Conference of Hellenic Society of Studying Bone Metabolism. Round table: Experimental models of Osteoporosis. 14-16 May, Athens, Greece.

**2010**. "Genetic Standardization". 4<sup>th</sup> International Course on Laboratory Animal Science. 4-15 October, Athens, Greece

**2010**. "Forward Genetics". 4<sup>th</sup> International Course on Laboratory Animal Science. 4-15 October, Athens, Greece.

**2011**. "Osteoimmunology-Mouse models of immune diseases". 3<sup>rd</sup> Immunology Summer School, 27June-1 July, Spetses, Greece.

**2011**. "Genetic Standardization". 5<sup>th</sup> International Course on Laboratory Animal Science. 16-30 September, Athens, Greece.

**2011**. "Forward Genetics". 5<sup>th</sup> International Course on Laboratory Animal Science. 16-30 September, Athens, Greece.

**2011**. "Modelling RANKL-mediated pathologies in mice". Final EUMODIC meeting, 21-22 November, Geneva, Switzerland.

**2011**. "Studying RANKL-mediated pathologies in transgenic mice". Geneva University Hospital, 22 November, Geneva, Switzerland.

**2011**. "Studying the pathogenic role of RANKL in transgenic mice overexpressing human RANKL". 2<sup>nd</sup> Hellenic Symposium of Research Dermatology. 30 September-2 October, Heraklion, Greece.

**2012**. Functional Genetics technologies in animal models. 2<sup>nd</sup> Conference on Agricultural Biotechnology, 4-5 October Athens.

**2013.** Novel therapeutic approaches in osteoporosis through RANKL inhibition. 5<sup>th</sup> International BBBB Conference "From Drug Discovery and Formulation Strategies to Pharmacokinetics-Pharmacodynamics", 26-28 September, Athens.

# Other activities

2007 Co-founder of Biomedcode Hellas, a Fleming spin-off for preclinical evaluation studies and novel drug development and she has applied for one patent.
 2011 Patent application on "TNF Superfamily trimerization inhibitors"

## Positions of Trust

2006- present Group leader.

- 2007-2011 Scientific coordinator of the Animal house unit of BSRC "Al. Fleming".
- 2003-2011 Member of the institutional animal care and use committee.
- 2003-2006 Head of the Animal house unit of BSRC "Al. Fleming".
- 2001-2006 Study responsible of preclinical trials using new pharmaceuticals in animal models of human diseases.