

Curriculum Vitae

Vassiliki Kostourou, PhD

Group Leader (Researcher B- Associate Professor Level)

Vascular Adhesion Lab
Institute of BioInnovation
Biomedical Research Centre “Alexander Fleming”
34 Fleming str. 166 72 Vari-Athens

email: kostourou@fleming.gr,
tel: +30 210 9654465, Fax: +30 210 9653934
<http://www.fleming.gr/en/investigators/Kostourou/index.html>



Education

- 31/12/2002** Ph.D. at St. George’s Medical School, Department of Biochemistry- Immunology, University of London, UK.
- 30/9/1998** MSc in Biochemical Research, Imperial College London, Department of Biochemistry, University of London, UK.
- 30/9/1998** Diploma in Biochemistry, Imperial College London, Department of Biochemistry, University of London, UK.
- 30/6/1997** BSc. in Biology, University of Patras, Greece (honors-upper 2nd class)

Research appointments

- Sep 2018- present** Researcher B- Associate Professor Level, BSRC Al. Fleming
- Sep 2008-2018** Researcher C- Assistant Professor Level, BSRC Al. Fleming.
- 2005-2007** Research Fellow at Institute of Cancer, Dept. Tumour Biology, CRUK-Clinical Center, UK, Cell Adhesion and Disease Laboratory (Advisor: Dr K. Hodivala-Dilke)
- 2002-2005** Research Fellow in London Research Institute -CRUK, UK, Vascular Development Laboratory, (Advisor: Dr R. Adams)

Awards/ Professional activities

- 2020- present** Elected Representative of Researchers at the Board of Directors of BSRC Fleming
- 2019- present** Member of the Scientific Advisory Board, Institute of BioInnovation, BSRC Fleming
- 2018- present** Ambassador of European Association of Cancer Research.
- 2018-present** Member of the EACR travel fellowship evaluation committee.
- 2008- present** Scientific Supervisor of Fleming BioImaging Facility
- 2015-present** Member of the board of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB).
- 2013-present** Member of the temporary administrative board of the Hellenic Bioimaging Society.
- 2006-2007** Teaching award at the course “Inside the cell”, PhD programme of Gulbenkian Institute, Lisbon, Portugal.

2002-2005 CRUK Postdoctoral Research Fellowship.

1998-2001 PhD studentship, St George's Medical School, University of London,

Funding

- 2020-2023: **Hellenic Foundation of Research and Innovation (H.F.R.I), 1st call for support of faculty members and researchers** “The functional significance of endothelial cell-matrix adhesions in vascular leakage- induced pathologies”
Budget: 180000€
- 2014-2017: **WorldWide Cancer Research (exAICR)**, “Talin: a novel determinant of tumour angiogenesis and cancer progression” Budget: 224000 £
- 2017-2020: **BIOIMAGING-GR Research Infrastructure**
Ministry of economy & Development “Bioimaging-GR-Fleming” Budget: 200000€ (Co-ordinator: Prof. N. Tavernarakis)
- 2013-2015: **SYNERGASIA action**, GSRT, “Nonastru” (Co-ordinator: Dr I. Mantala)
Budget for the lab: 50000€
- 2011-2014: **SYNERGASIA action**, GSRT, “TheRAlead” (Co-ordinator: Prof G. Kollias) Budget for the lab: 80000€
- 2011: **ELPEN**, “Studying blood vessels during wound healing in diabetic conditions”
Budget: 10000€

Supervising of students

PhD students

- Since February 2018: Georgia Rouni, School of Biology, University of Patras
- Since November 2016: Christina Arapatzi, Dept. Molecular Biology & Genetics, DUTH
- Since March 2015: Pinelopi Nikolopoulou, Medical School, University of Athens
- Co-supervising 2006-2010: Bernardo Tavora, Queen Mary University London, UK
- Part of tripartite PhD committee: Nikolitsa Ntioufa, Medical School, Univ. of Athens

MSc students

- 2019: Maria Koufaki, MSc Molecular Biomedicine, Medical School, Univ. Athens
- 2018: Aigli-Ioanna Legaki, MSc Molecular Biomedicine, Medical School, Univ. Athens
- 2015-2016: Georgia Rouni, MSc Molecular Medicine, Medical School, Univ. Athens
- 2011-2012: E. Papageorgopoulou MSc Molecular Medicine, Medical School, Univ. Athens
- 2010-2011: Katerina Ntakou, MSc Molecular Medicine, Medical School, Univ. Athens
- 2008-2009: Sofia Birmpili, Université de Paris VI, Pierre et Marie Curie, France

Diploma students

- Oct 2019-Sept 2020: Euaggelia Giannaki, Department of Biology, Univ. of Athens
- Oct 2018-Sept 2019: Christos Kamaras, Department of Biological Applications and technology, Univ. of Ioannina
- Apr-Sept 2016: Vassiliki Mavridou, Department of Biology, AUTH
- Apr-Nov 2014: Aspasia Gkasti Department of Biology, DUTH
- Apr.-Oct 2014: Panagiota Petrisi Dept. of Medical Laboratories, TEI Athens
- Oct.-Mar.2012: Kleanthis Xanthopoulos Dept. of Medical Laboratories, TEI Athens

Research Trainees

- Sept 2019-Aug 2020: Christos Kamaras, BSc
- Oct- July 2014: Vassilis Papalazarou, MSc
- Oct 2014-July 2019: Vassia Papadaki, PhD

Teaching experience

Organiser:

- Module “Cutting edge technologies in molecular biology”, Postgraduate course “Molecular Biomedicine” Faculty of Medicine, University of Athens (since 2016)
- practical courses in biochemistry, St George's Medical School, University of London, UK. (1999-2001)

Invited Lecturer in international courses/schools:

- 7th International Summer School in Medical and Biosciences Research, World Hellenic Biomedical Association (May 18-25, 2018)
- PhD programme of Gulbenkian Institute, Lisbon, Portugal. (2007-2010)

Invited Lecturer in national postgraduate courses:

- “Neurobiological basis of diseases”, Dept. Biology, UoA (2018)
- “Molecular and Applied Physiology”, Medical School, UoA (since 2012)
- “Translational research in molecular biology and genetics”, Dept. Molecular Biology and Genetics, DUTH (since 2012).
- “Applied Genetics and Biotechnology”. Dept. Biology, AUTH (since 2015)
- “Molecular Medicine”, Medical School, UoA, Greece. (2008-2015)
- “Molecular Biology-Biomedicine”, Medical School, Univ.of Crete, (2014-2016)
- “Basic Medical Sciences”, Faculty of Medicine, Univ.of Patras. (2015)

Invited Lecturer in undergraduate courses:

- “Oncogenes and Growth Factors in cancer biology”, Medical School, UoA, (2015)
- “Developmental Biology”, Dept. Biology, Univ. of Patras (2013)

Patent (in progress)

“Talin activation and use thereof” *Inventor: V. Kostourou*

Lab Selected Publications (*corresponding author)

1. Nikolopoulou P., Koufaki M., Kostourou V*. “The Adhesome Network: Key Components Shaping the Tumour Stroma” **Cancers** 13 (3): 525 (2021)
2. Daras G, Rigas S, Alatzas A, Samiotaki M, Chatzopoulos D, Tsitsekian D, Papadaki V, Templalexis D, Banilas G, Athanasiadou AM, Kostourou V, Panayotou G, Hatzopoulos P. “LEFKOTHEA Regulates Nuclear and Chloroplast mRNA Splicing in Plants”. **Dev Cell** 50(6):767-779 (2019)
3. Pedrosa AR, Bodrug N, Gomez-Escudero J, Carter EP, Reynolds LE, Georgiou PN, Fernandez I, Lees DM, Kostourou V, Alexopoulou AN, Batista S, Tavora B, Serrels B, Parsons M, Iskratsch T, Hodivala-Dilke KM. “Tumor Angiogenesis Is Differentially Regulated by Phosphorylation of Endothelial Cell Focal Adhesion Kinase Tyrosines-397 and -861”. **Cancer Res.** 79(17):4371-4386 (2019)

4. Koutelidakis AE, Argyri K, Sevastou Z, Lamprinaki D, Panagopoulou E, Paximada E, Sali A, Papalazarou V, Mallouchos A, Evageliou V, Kostourou V, Mantala I, Kapsokefalou M “Bioactivity of Epigallocatechin Gallate Nanoemulsions Evaluated in Mice Model”. **J Med Food**. 20(9):923-931 (2017).
5. Kamper M., Papalazarou V., Rouni G., Papageorgopoulou E., Papalois A & Kostourou V*. “Angiotensin II inhibitor facilitates epidermal wound regeneration in diabetic mice”. **Front. Physiol.**, 6: 170 (2015)
6. Tavora B, Batista S, Alexopoulou AN, Kostourou V, Fernandez I, Robinson SD, Lees DM, Serrels B, Hodivala-Dilke K. “Generation of point-mutant FAK knockin mice”. **Genesis**. 52(11):907-15. (2014)
7. Kotsinas A, Papanagnou P, Evangelou K, Trigas GC, Kostourou V, Townsend P, Gorgoulis VG. “ARF: a versatile DNA damage response ally at the crossroads of development and tumorigenesis”. **Front Genet**. 5:236. (2014)
8. Kostourou V.*, Papalazarou V. “Non-collagenous ECM proteins in blood vessel morphogenesis” **BBA General subjects (Invited Review)** 1840(8):2403-13. (2014)
9. Kostourou V.*, Lechtier T., Reynolds L.E., Lees D., Baker M., Jones D., Tavora B., Ramjaun A., Birdsey G., Robinson S., Parsons M., Randi A., Hart I., Hodivala-Dilke K. “FAK heterozygous mice display enhanced pathological angiogenesis” **Nature Commun**. 4:2020 (2013)
10. Ikonomidou G, Kostourou V, Shirasawa S, Sasazuki T, Samiotaki M, Panayotou G. “Interplay between oncogenic K-Ras and wild-type H-Ras in Caco2 cell transformation”. **J. Proteomics** 75:5356-5369 (2012)
11. Monkley S., Kostourou V., Spence L., Petrich B., Coleman S., Ginsberg M., Pritchard C. & Critchley D. “Endothelial cell talin1 is essential for embryonic angiogenesis”. **Dev. Biol**. 349:494-502. (2011)
12. Tavora B., Batista S., Reynolds L., Robinson S., Jajida S., Kostourou V., Hart I., Fruttiger M., Parsons M. & Hodivala-Dilke K. “Endothelial Cell FAK is required for tumour angiogenesis” **EMBO Mol. Med**. 2: 516-528 (2010)
13. Kalogeropoulou M., Voulgari A., Kostourou V., Sandaltzopoulos R., Dikstein R., Davidson I., Tora L. & Pintzas A. “TAF4b and Jun/AP-1 Collaborate to Regulate Expression of Integrin $\alpha 6$ and Cancer Cell Migration Properties” **Mol Cancer Res**. 8:554-68 (2010)

Cited abstracts:

1. Papageorgopoulou, E.; Monkley, S.; Critchley, D.; Kostourou, V* “The role of adhesion protein Talin in wound angiogenesis and repair”. **Wound Repair and regeneration** 20(5): A99 (2012)

Other Publications

- Kostourou V., Cartwright J., Johnstone A., Boulton J., Cullis E., Whitley G. & Robinson S. “The Role of Tumour Derived iNOS in Tumour Progression and Angiogenesis”. *Br J Cancer* 104:83-90. (2011)
- Silva R., Tavora B., Reynolds L., Szekeres C., Lamar J., Batista S., Robinson S., Kostourou V., Germain M., Reynolds A., Jones D., Watson A., Jones J., Harris A., Hart I., Iruela-Arispe L., DiPersio M., Kreidberg J. & Hodivala-Dilke K. “Endothelial $\alpha\beta 1$ -integrin represses pathological angiogenesis and sustains endothelial-VEGF” *Am J Pathol.* 177:1534-1548. (2010)
- Germain M., De Arcangelis A., Robinson S., Baker M., Tavora B., D’Amico G., Silva R., Kostourou V., Reynolds L., Ramjaun A., Jones J., Georges-Labrousse E. & Hodivala-Dilke K. “Genetic ablation of the alpha 6-integrin subunit in TielCre mice enhances tumour angiogenesis” *J Pathol.* 220:370-381. (2010)
- D’Amico G., Jones D., Nye E., Spienza K., Ramjuan A., Reynolds A., Robinson S., Kostourou V., Martinez D., Aubyn D., Grose R., Thomas G., Spencer-Dene B, Zicha D, Davies D, Tybulewicz V, & Hodivala-Dilke K. “Regulation of lymphatic blood vessel separation by Rac-1” *Development* 136(23): 4043-4053. (2009)
- Robinson S., Reynolds L., Kostourou V., Reynolds A., Silva R., Marshall J. & Hodivala-Dilke K. “ $\alpha\beta 3$ -integrin limits the contribution of Neuropilin-1 to VEGF-induced angiogenesis”. *JBC* 284: 33966-33981. (2009)
- Reynolds A., Hart I., Watson A., Welti J., Silva R., Robinson S., Da Violante G., Gourlaouen M., Salih M., Jones M., Jones D., Saunders G., Kostourou V., Perron-Sierra F., Norman J., Tucker G. & Hodivala-Dilke K. “Stimulation of tumor growth and angiogenesis by low concentrations of RGD mimetic integrin inhibitors”. *Nat Med.* 15:372-400 (2009)
- Claxton S., Kostourou V., Jadeja S., Chambon P., Hodivala-Dilke K. & Fruttiger M. “Efficient, inducible Cre-recombinase activation in vascular endothelium”. *Genesis* 46:74-80 (2008)
- Takamiya K., Kostourou V., Adams S., Jadeja S., Chalepakis G., Scambler P., Haganir R & Adams R. “A direct functional link between the multi-PDZ domain protein GRIP1 and the Frazer syndrome protein Fras1”. *Nat Genet.* 36:172-177 (2004)
- Kostourou V., Troy H., Murray J., Whitley G, Griffiths JR. & Robinson SP. “Overexpression of Dimethylarginine Dimethylaminohydrolase enhances tumour hypoxia: An insight into the relationship of hypoxia and angiogenesis in vivo” *Neoplasia* 6:401-404 (2004)
- Kostourou V., Robinson SP., Whitley G. & Griffiths JR. “Effects of Overexpression of Dimethylarginine Dimethylaminohydrolase on Tumour Angiogenesis Assesed by Susceptibility Magnetic Resonance Imaging” *Cancer Res.* 63: 4960-4966 (2003)
- Kostourou V., Robinson SP., Cartwright JE. & Whitley G. “Dimethylarginine Dimethylaminohydrolase I enhance tumour growth and angiogenesis”. *Br J Cancer.* 9:673-680 (2002)
- Thiru A., Hodach M., Eloranta J., Kostourou V., Weinzierl ROJ. & Matthews S. “RNA polymerase subunit H features a beta-ribbon motif within a novel fold that is present in archaea and eukaryotes” *J Mol Biol.* 287:753-760. (1999)

Invited speaker

International conferences:

- Annual Meeting of the International Cell Senescence Association (ICSA), Athens, Greece “Endothelial cell adhesion is a central regulator of blood vessel homeostasis and pathology” (Sept. 9-12, 2019)
- Autumn meeting of British Society for Matrix Biology, Univ. of East Anglia, UK "Talin mechanosensing is required for vascular development and pathological angiogenesis” (Sept. 9-10, 2019)
- 2nd Matrix Biology Europe Conference MBE2016, Athens, “Talin 1 dysfunction is associated with the Systemic Capillary Leak Syndrome” (June 11-14, 2016)
- Gordon Research Conference on Angiogenesis -New Mechanisms in Vascular Patterning and Specialization: From Cells to Functional Networks, Salve Regina University Newport, RI, “Talin: a novel determinant of pathological angiogenesis” (August 2-7, 2015)
- INsPiRE International Workshop, Oncogenic pathways and anti-tumour responses, BRFAA, Athens, , “Regulation of vascular adhesion in cancer development”. (April 23-25, 2014)
- 22nd European Tissue Repair Society (ETRS)_meeting, Athens, “The role of adhesion protein Talin in wound angiogenesis and repair”. (Oct 4-5, 2012)

Research Institutes/Departments:

- Beatson Institute-Cancer Research UK, Glasgow, UK, “Integrin-adhesome functions in tumour angiogenesis”. (June 2014)
- Gulbenkian Institute, Lisbon, Portugal, “Vascular Development in health and disease”. (Nov 2010)
- University of Leicester, Leicester, UK, “The role of focal adhesion proteins in angiogenesis”. (March 2007)

National conferences:

- 10th Conference of the Hellenic Society of Biologists, Athens, “Cancer and Angiogenesis: an intricate relationship” (Nov, 2016)
- 37th Annual Conference of Hellenic Society for Biological Sciences, Volos, “Talin: a new determinant of blood vessel development and tumour angiogenesis”. (21-23 May 2015)
- 63rd National Conference, Hellenic Society of Biochemistry and Molecular Biology, Hrakleio, Crete, Greece, “FAK-heterozygous mice display enhanced pathological angiogenesis”. (9-11 Nov 2012)
- Conference of the Hellenic association of Bioscientists, Athens, Greece, “To move or not to move? Important decisions in blood vessel formation”. (Oct 2010)
- 58th National Conference, Hellenic Society of Biochemistry and Molecular Biology, Patras, “Investigating the role of Focal adhesion kinase in pathological angiogenesis”. (Nov 2006)

Organisation of conferences/chair at sessions

- Member of the organizing committee and Chair of the 15th European Molecular Imaging Meeting, Thessaloniki, (March 2020)
- Member of the organizing committee and Chair of the 2nd Matrix Biology Europe Conference MBE2016, Athens, (June 2016)
- Member of the organizing committee for the 67th conference of Hellenic Society of

- Biochemistry and Molecular Biology (HSBMB), Ioannina (Nov 2016).
- Member of the organizing committee for the 66th conference of Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Athens (Dec 2015).
 - Member of the organizing committee for the 66th conference of Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Athens (Dec 2011).
 - Co-organising the session: Dynamic Imaging: from single cell to whole animal, 62nd HSBMB conference, Athens, (Dec 2011).
 - Chair at the International ELMI meeting on Advanced Light Microscopy, Alexandroupolis, (June 2011).
 - Chair of session at the “Imaging Biomolecules in Time and Space”, An advanced light microscopy symposium, University of Patras, Patra, (Sep 2010).

Public Engagement Scientific Activities

April 2016 Organizer of the exhibition “Life through the microscope-from Fleming till today” Athens Science Festival

2010-present: Organizer of school visits to BSRC Al. Fleming

Member of scientific societies

- European Association for Cancer Research
- European Tissue Repair Society
- Hellenic Society of Biochemistry and Molecular Biology
- Hellenic Society of BioImaging
- British Biochemical Society
- British Society of Cell and Developmental Biology
- Imperial College London Alumni Society.

Reviewer of International Scientific Journals

Cell Reports
EMBO Molecular Medicine
Journal of Cell Science
PLOS Biology
Journal of Pathology
British Journal of Pharmacology

Reviewer for funding bodies

- Swiss National Science Foundation
- Big C Cancer Research Funding, Norwich
- BBSRC, UK
- Cancer Research UK, UK
- Cyprus Research Foundation
- General Secretary of Research and Technology, Ministry of Education, Greece