

## VASILIKI BRAVOU MD, PhD, Assistant Professor

### CURRICULUM VITAE

#### PERSONAL INFORMATION

**NAME:** Vasiliki  
**SURNAME:** Bravou  
**TITLE:** MD, PhD  
**CURRENT POSITION** Assistant Professor of Anatomy-Histology-Embryology, University of Patras, Medical School, Patras, Greece;  
**DATE OF BIRTH:** 30-08-1975  
**NATIONALITY:** Greek

**CONTACT INFORMATION:** University of Patras Medical School,  
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#### EDUCATION

**M.D., 2001.** School of Medicine, University of Patras  
**M.Sc., 2003.** School of Medicine, University of Patras, M.Sc in Basic Medical Sciences, Molecular Anatomy  
**PhD., 2006.** School of Medicine, University of Patras, Department of Anatomy  
**Pathology Specialty Training, 2007-2011.** Department of Pathology, Agios Andreas Hospital of Patras, Greece and Department of Histopathology, Hammersmith Hospital, Imperial College, London, UK (Specialty training in Renal Pathology and Electron Microscopy)

#### EMPLOYMENT HISTORY / EXPERIENCE:

**2003-2006.** Research fellowship, Haematology Laboratory, School of Medicine, University of Patras (Under Prof. NC Zoumbos)  
**11/2006-6/2007.** Post-doctoral researcher, Clinical Oncology Laboratory, University Hospital of Patras, Patras, Greece (Under Prof. H. Kalofonos)  
**2006-2008.** Post-doctoral Fellow and Teaching Assistant, Department of Anatomy, School of Medicine, University of Patras (Under Prof. J Varakis)  
**10/2007-4/2011.** Specialist trainee in Pathology, Department of Pathology, Agios Andreas Hospital of Patras, Greece.  
**7/2010-12/2010** Fellowship in Renal Pathology and Electron Microscopy, Department of Histopathology, Hammersmith Hospital, Imperial College, London, UK and Department of Histopathology, Electron Microscopy Unit, Charing Cross Hospital, London, UK  
**4/2011-present.** Assistant Professor of Anatomy-Histology-Embryology, University of Patras Medical School, Patras, Greece

#### HONORS-SCHOLARSHIPS

**1996-1997&1998-1999&2001-2002.** State Scholarships Foundation awards for academic excellence (second and third year of Medical School and first year of MSc).  
**2001.** Graduated with Honors from Medical School, University of Patras (ranking first in graduate class 2001-2002).  
**2002.** GlaxoSmithKline scholarship for postgraduate studies  
**2003-2007.** Research Scholarship. Operational program 'competitiveness, (EPAN). Greek Ministry of Development.Co-ordinator: Prof. NC Zoumbos. Hematology Laboratory, School of Medicine, University of Patras. Research Project subject: Nanotechnology in the development of new molecular diagnostic strategies.

#### TEACHING

##### -Undergraduate

**1. Department of Medicine, School of Health Sciences, University of Patras**

Anatomy I, Anatomy II, Histology-Embryology I, Histology-Embryology II, Molecular Anatomy (Co-ordinator).

**2. Department of Pharmacology, School of Health Sciences, University of Patras**  
Morphology of the Human Body

**-Postgraduate**

**1. M.Sc in Basic Medical Sciences, Medical School, University of Patras**

Molecular Anatomy (Co-ordinator), Research Methodology II (FISH, Electron Microscopy), Current issues in Biology Research, Bio-pathology, invited speakers Seminars

**2. Inter-departmental MSc in Bioinformatics, University of Patras**

Current issues in Biomedical research, Structure and function of the human body.

**3. A European Course On Biomedical Engineering and Medical Physics.**

Anatomy from cells to tissues.

**4. Supervisor** : PhD students (1), Msc students (4), undergraduate students (1)

**ADMINISTRATIVE ACTIVITIES**

-Member of the teaching laboratories committee.

**AREAS OF EXPERTISE/RESEARCH INTERESTS**

**-Cancer molecular pathology (mechanisms of invasion and metastasis, tumour microenvironment, actin cytoskeleton and integrin-associated proteins, TGF- signaling, EMT)**

Gastrointestinal cancer (J BUON 2012; Cancer Res, 2011; Cell Oncol 2011; Histol Histopath 2010, Cell Oncol 2009; Oncol Rep 2008; J Pathol 2006; Int J Oncol 2005; Br J Cancer 2003)

Other cancers (Urol Oncol 2011; Histopathology 2010; Pathology 2010; Brain Pathol 2010; Lung Cancer 2009; Virchows Archiv 2008; Nucleic Acids Res 2007)

**- Renal Pathology** (Clin Nephrol. 2012; Kidney Int. 2011)

**-Molecular pathogenesis of cardiovascular diseases** (J Thorac Cardiovasc Surg 2013, J Cardiothorac Surg 2012; Artery research 2011; Int J Cardiol 2010)

**RESEARCH GRANTS**

Participation in 4 National grants as team member investigator. Total amount of 670.000 euros for University of Patras

**1998-2001.** "Karatheodori" Research Program, University of Patras. Research Project Title: Identification of cell proliferation and differentiation markers in tumors of the C.N.S. Total budget: 20.000 Euros. Co-ordinator: Associate Prof. M. Assimakopoulou. Department of Anatomy, School of Medicine, University of Patras. Role: Team member investigator.

**2003-2006.** Research Program "PYTHAGORAS". Greek Ministry of National Education and Religious Affairs. Research Project Title: Central regulators of cell division in the molecular pathogenesis of cancer. Total budget 95.000 Euros. Co-ordinator: Assistant Prof. S. Taraviras. Department of Pharmacology. Role: Team member investigator.

**2003-2007.** Operational program 'competitiveness, (EPAN). Greek Ministry of Development. Research Project title: Nanotechnology in the development of new molecular diagnostic strategies. Budget: 641.648 Euros. Co-ordinator: Prof. NC Zoumbos. Hematology Laboratory, School of Medicine, University of Patras. Role: Team member investigator-Research Scholarship.

**2007-2010.** "Karatheodori" Research Program, University of Patras. Research Project Title: The prognostic significance of lymphatics in cervical intraepithelial neoplasia and squamous cervical cancer-The role of HPV and inflammation in lymphangiogenesis. Total Budget 24000 Euros. Co-ordinator: Associate Prof. Papadaki H. Department of Anatomy. Role: Collaborating investigator.

## INTERNATIONAL COLLABORATORS

- Prof. Terry Cook. Professor of Renal Pathology. Department of Histopathology. Imperial College, Hammersmith Hospital. London UK
- Dr. Candice Roufousse. Department of Histopathology. Imperial College, Hammersmith Hospital. London UK
- Dr Jill Moss, Department of Histopathology, Electron Microscopy Unit, Charing Cross Hospital, London, UK
- Dr. Vasso Episkopou. Department of Medicine, Centre for Neuroscience, ImperialCollege, Hammersmith Campus. London UK

## NATIONAL COLLABORATORS

- Prof. H. Kalofonos. Clinical and Research Oncology Laboratory. University of Patras, Patras, Greece.
- Associate Professor S. Taraviras. Department of Physiology. University of Patras, Patras, Greece
- Associate Professor V. Zolota. Department of Pathology. University of Patras, Patras, Greece
- Prof. D. Dougenis. Department of Cardiothoracic Surgery. University of Patras, Patras, Greece
- Dr M. Repanti. Department of Pathology, Agios Andreas Generla Hospital of Patras, Patras, Greece.

## PUBLICATION RECORD

<b>PUBLICATIONS</b>	<b>Number</b>
PhD Thesis	1
Original articles in peer-reviewed journals	<b>27</b>
Original articles in peer-reviewed journals under submission	2
Original articles where first author	7
Original articles where corresponding author	7
Abstracts in peer-reviewed journals	<b>12</b>
Original full papers the last five years	21
Contribution to textbooks	2
Oral/poster presentations in international congresses	14
Oral/poster presentations in national congresses	22
Awards in international congresses	3
Awards in national congresses	2
<b>CITATIONS (Google scholar)</b>	<b>484</b>
<b>h-index</b>	<b>13</b>
<b>i10-index</b>	<b>14</b>

## BEST PUBLICATIONS

1. Sharma V, Antonacopoulou AG, Tanaka S, Panoutsopoulos AA, Karoulias N, **Bravou V\***, Kalofonos HP , Episkopou V\*. Enhancement of TGF- $\beta$  Signaling Responses by the E3 Ubiquitin Ligase Arkadia Provides Tumor Suppression in Colorectal Cancer. **Cancer Res.** 2011;71(20):6438-49\*Corresponding author **IF (5year)=8.576**
2. **Bravou V**, McLean AG,Loucaidou M, Cairns TD Cook HT, Roufousse CA. Praproteins zippers. **Kidney Int.** 2011;80(1): 126 **IF (5year)=6.968**
3. **Bravou V**, G Klironomos, Papadaki E, S Taraviras S, Varakis J. ILK overexpression in human colon cancer progression correlates with activation of  $\beta$ -catenin, down-regulation of E-cadherin and activation of the Akt-FKHR pathway. **J Pathol**, 2006; 208: 91-99. **IF (5year)=6.92**
4. Kalogianni DP, **Bravou V**, Christopoulos TK, Ioannou PC, Zoumbos NC. Dry reagent disposable dipstick test for visual screening of seven leukemia-related chromosomal translocations **Nucleic Acids Res.** 2007; 35(4) e23 **IF (5year)=8.278**

5. Klironomos G, **Bravou V**, Papachristou DJ, Gatzounis G, Varakis J, Parassi E, Repanti M, Papadaki H. Loss of inhibitor of Growth (ING-4) is implicated in the pathogenesis and progression of Human astrocytomas. *Brain Pathol.* 2010;20(2):490-7. **IF (5year)=5.047**
6. Papanikolaou S, **Bravou V\***, Gyftopoulos K, Nakas D, Repanti M, Papadaki H. ILK expression in human basal cell carcinoma correlates with epithelial-mesenchymal transition markers and tumour invasion. *Histopathology* 2010; 56: 799-809. \*Corresponding author **IF (5year)=3.5**

### TEXTBOOKS

- Pathophysiology and Molecular Basis of Blood Disorders. NC Zoumbos, ed. 2009 Synedra Publications (Chapter writing).
- Histology. A text and Atlas. Ross MH, Pawlina W. (Greek Translation-Editing)

### RESEARCH AWARDS IN INTERNATIONAL CONGRESSES

1. Sharma V, Bravou V, Antonacopoulou A, Karoulias N, Alexis Panoutsopoulos A, Kalofonos H and Episkopou V. Reduction of Arkadia increases susceptibility to cancer in a mouse model. Invite-only meeting on TGF-beta signalling and cancer at the LIMC, Leiden, Netherlands, August 2010. Best poster presentation award.
2. Mitsos S, Koletsis E, Katsanos K, Karnabatidis D, Bravou V, Kolonitsiou F, Melachrinou M, Siablis D, Dougenis D. A novel minimal invasive model of myocardial infarction in rabbit-comparison with surgical model. 7th International Congress of Update in Cardiology and Cardiovascular Surgery (UCCVS) in association with Transcatheter Cardiovascular Therapeutics (TCT) Mediterranean, March 2011, Antalya, Turkey. Best poster presentation award.
3. Peroukides S, Bravou V, Alexopoulos A, Kafiri G, Frangides CH, Papadaki H. p-Akt, survivin and cyclin D1 expression in human hepatocellular carcinoma: an immunohistochemical study. 3rd International Congress on Gastrointestinal Oncology, June 2007, Hersonissos, Crete. Young Investigator best presentation award

### RESEARCH AWARDS IN NATIONAL CONGRESSES

1. Goulioumis A, Papadaki H, Bravou V, Repanti M. Expression of integrin-linked kinase, p-Akt and E-cadherin in human laryngeal cancer. 11<sup>0</sup> Hellenic Pathology Congress, Patras, May 2008 Best poster presentation award.
2. Mitsos S, Koletsis E, Katsanos K, Karnabatidis, D, Bravou V, Gizas S, Kalonitsiou F, Melachrinou M, Siablis D, Dougenis D. Comparison of minimally invasive model with open-chest surgery for experimental myocardial infarction in rabbits. 80 Hellenic Congress of Chest-Heart –Vessel Surgeons. November 2010. Athens, Greece. Best poster presentation award.

### RESEARCH SCHOLARSHIPS

Operational program 'competitiveness, (EPAN). Greek Ministry of Development. Total Budget: 641.648 Euros. Co-ordinator: Prof. NC Zoumbos. Hematology Laboratory, School of Medicine, University of Patras. Research Project subject: Nanotechnology in the development of new molecular diagnostic strategies.

### INVITED LECTURES

- 10/2009.** Integrin-linked kinase: new insights in signaling and cancer. 14<sup>th</sup> World Congress on Advances in Oncology and 12<sup>th</sup> International symposium on Molecular medicine, Loutraki, Greece.
- 5/2009.** Molecular Anatomy of the renal corpuscle. 11<sup>th</sup> Hellenic Congress of Pathology, Patras, Greece

### JOURNAL EDITORIAL BOARD MEMBERSHIP

- American Journal of Cancer Research

### REVIEWER INVITATIONS

Reviewed Grants for:

- Fundação para a Ciência e a Tecnologia, Portugal (2006)

Reviewed Manuscripts for:

- Pathology, PLOS one, Disease Markers, BMC Cancer, Digestive and Liver Disease

## LIST OF PUBLICATIONS

### ORIGINAL PAPERS IN PEER-REVIEWED JOURNALS

1. Mitsos S, Koletsis EN, Katsanos K, **Bravou V**, Kolonitsiou F, Marinos E, Flordellis CS, Dougenis D. Intramyocardial thrombin promotes angiogenesis and improves cardiac function in an experimental rabbit model of acute myocardial infarction. *J Thorac Cardiovasc Surg* 2013 doi:pii: S0022-5223(13)00601-6. 10.1016/j.jtcvs.2013.05.036. [Epub ahead of print]
2. Gialmanidis IP, **Bravou V**, Petrou I, Kourea H, Mathioudakis A, Lilis I, Papadaki H. Expression of Bmi1, FoxF1, Nanog and  $\gamma$ -catenin in relation to Hedgehog signaling pathway in human non-small cell lung cancer. *Lung*. 2013;191(5):511-21
3. **Bravou V\***, Papanastopoulos P, Verras D, Kotsikogianni I, Damaskou V, Repanti M. Transforming growth factor  $\beta$  repressor, SnoN, is overexpressed in human gastrointestinal stromal tumors. *J BUON*. 2012; 17(4):684-90. \*Corresponding author
4. **Bravou V**, Galliford J, McLean A, Willicombe M, Taube D, Cook HT, Roufousse C. A case of chronic antibody-mediated rejection in the kidney. *Clin Nephrol*. 2013;80(10):306-9.
5. Katsanos K, Mitsos S, Koletsis E, **Bravou V**, Karnabatidis D, Kolonitsiou F, Diamantopoulos A, Dougenis D, Siablis D. Transcatheter embolization of the rabbit coronary artery for experimental myocardial infarction: comparison of a minimally invasive closed-chest model with open-chest surgery. *J Cardiothorac Surg*. 2012;7:16.
6. Sharma V, Antonacopoulou AG, Tanaka S, Panoutsopoulos AA, Karoulias N, **Bravou V\***, Kalofonos HP, Episkopou V\*. Enhancement of TGF- $\beta$  Signaling Responses by the E3 Ubiquitin Ligase Arkadia Provides Tumor Suppression in Colorectal Cancer. *Cancer Res*. 2011;71(20):6438-49\*Corresponding author
7. Athanasopoulou A, Aroukatos P, Nakas D, Repanti M, Papadaki H, **Bravou V\***. Decreased ezrin and paxillin expression in human urothelial bladder tumors correlate with tumor progression. *Urol Oncol* 2013;31(6):836-42 \*Corresponding author
8. Alexopoulos A, Peroukides S, **Bravou V**, Varakis J, Pyrgakis V, Papadaki H. Implication of Bone regulatory factors in human artery calcification. *Artery research* 2011; 5(4): 101-108
9. **Bravou V**, McLean AG, Loucaidou M, Cairns TD, Cook HT, Roufousse CA. Praproteins zippers. *Kidney Int*. 2011;80(1): 126
10. Antonacopoulou AG, Floratou K, **Bravou V**, Kottorou A, Dimitrakopoulos FI, Marousi S, Stavropoulos M, Koutras AK, Scopa CD, Kalofonos HP. The survivin -31 snp in human colorectal cancer correlates with survivin splice variant expression and improved overall survival. *Cell Oncol (Dordr)*. 2011;34(4):381-91
11. Sotiropoulou N, **Bravou V\***, Kounelis S, Damaskou V, Papaspiro E, Papadaki H. Tumour expression of lymphangiogenic growth factors but not lymphatic vessel density is implicated in human cervical cancer progression. *Pathology*. 2010;42(7):629-36\*Corresponding author.
12. Antonacopoulou AG, Floratou K, **Bravou V**, Kottorou A, Dimitrakopoulos FI, Marousi S, Stavropoulos M, Koutras AK, Scopa CD, Kalofonos HP. The survivin -31 snp in human colorectal cancer correlates with survivin splice variant expression and improved overall survival. *Anal Cell Pathol (Amst)*. 2010;33(5):177-89
13. Papanikolaou S, **Bravou V\***, Gyftopoulos K, Nakas D, Repanti M, Papadaki H. ILK expression in human basal cell carcinoma correlates with epithelial-mesenchymal transition markers and tumour invasion. *Histopathology* 2010; 56: 799-809. \*Corresponding author
14. Peroukides S, **Bravou V\***, Alexopoulos A, Varakis J, Kalofonos H, Papadaki H. Survivin overexpression in HCC and liver cirrhosis differentially correlates with p-STAT3 and E-cadherin. *Histol Histopathol* 2010, 25(3): 299-307. \*Corresponding author
15. Aroukatos P, Repanti M, Repantis T, **Bravou V**, Korovessis P. Immunologic adverse reaction associated with low-carbide metal-on-metal bearings in total hip arthroplasty. *Clin Orthop Relat Res* 2010;468(8):2135-42.
16. Klironomos G, **Bravou V**, Papachristou DJ, Gatzounis G, Varakis J, Parassi E, Repanti M, Papadaki H. Loss of inhibitor of Growth (ING-4) is implicated in the pathogenesis and progression of Human astrocytomas. *Brain Pathol*. 2010;20(2):490-7.
17. Alexopoulos A, **Bravou V**, Peroukides S, Kaklamanis L, Varakis J, Alexopoulos D, Papadaki H. Bone regulatory factors NFATc1 and Osterix in human calcific aortic valves *Int J Cardiol*. 2010;139(2):142-9.

18. **Bravou V**, Antonacopoulou A, Papadaki H, Floratou K, Stavropoulos M, Episkopou V, Petropoulou C, Kalofonos H. TGF- $\beta$  repressors SnoN and Ski are implicated in human colorectal carcinogenesis. *Cell Oncol.* 2009; 31(1):41-51.
19. Gialmanidis IP, **Bravou V**, Amanetopoulou SG, Varakis J, Kourea H, Papadaki H. Overexpression of hedgehog molecules and FOXM1 in non-small cell lung carcinomas. *Lung Cancer.* 2009; 66: 64-74
20. Peroukides S, **Bravou V\***, Varakis J, Alexopoulos A, Kalofonos H, Papadaki H. ILK overexpression in human hepatocellular carcinoma and liver cirrhosis correlates with activation of Akt. *Oncol Rep.* 2008;20(6):1337-44. \*Corresponding author
21. Papanastasopoulos P, Repanti M, Damaskou V, **Bravou V**, Papadaki H. Investigating differentiation mechanisms of the constituent cells of sex-cord stromal tumours of the ovary. *Virchows Archiv.* 2008; 453(5): 465-471
22. Goulioumis AK, **Bravou V**, Varakis J, Goumas P, Papadaki H. Integrin-Linked Kinase cytoplasmic and nuclear expression in laryngeal carcinomas. *Virchows Archiv.* 2008; 453(5): 511-9
23. Kalogianni DP, **Bravou V**, Christopoulos TK, Ioannou PC, Zoumbos NC. Dry reagent disposable dipstick test for visual screening of seven leukemia-related chromosomal translocations. *Nucleic Acids Res.* 2007; 35(4) e23
24. **Bravou V**, G Klironomos, Papadaki E, S Taraviras S, Varakis J. ILK overexpression in human colon cancer progression correlates with activation of  $\beta$ -catenin, down-regulation of E-cadherin and activation of the Akt-FKHR pathway. *J Pathol*, 2006; 208: 91-99.
25. **Bravou V**, Nishitani H, Song SY, Taraviras S, Varakis J. Expression of the licensing factors, Cdt1 and Geminin, in human colon cancer. *Int J Oncol*, 2005; 27: 1511-1518.
26. **Bravou V**, Klironomos G, Papadaki E, Stefanou D, Varakis J. Integrin-linked kinase (ILK) expression in human colon cancer. *Br J Cancer* 2003; 89 (12): 2340-1.
27. Bliznakova K, Bliznakov J, **Bravou V**, Kolitsi Z, Pallikarakis N. A three dimensional breast software phantom for mammography simulation. *Phys Med Biol* 2003; 48 (22): 3699-3719.

#### ABSTRACTS IN PEER-REVIEWED JOURNALS

1. Papanikolaou S, Bravou V, Gyftopoulos K, Nakas D, Repanti M, Papadaki H. ILK expression in human basal cell carcinoma correlates with EMT markers and tumour invasion. *International Journal of Molecular Medicine*, 2009;24(S1): S20
2. Bravou V, Athanasopoulou A, Aroukatos P, Nakas D, Vandoros GP, Repanti M. Altered ezrin expression in urothelial bladder tumors. *Virch Archiv* 2009; 455(S1): 64-65
3. Bravou V, Damaskou V, Kotsikogianni I, Verras D, Repanti M. Expression of p-Smad2 and SnoN in GISTS. *Virch Archiv* 2009; 455(S1): 86
4. Peroukides S, Bravou V, Alexopoulos A, Varakis J, Kalofonos H, Papadaki H. Survivin overexpression in HCC and liver cirrhosis differentially correlates with p-STAT3 and E-cadherin. *Annals of Oncology.* 2009; 20(S7): 53
5. Bravou V, Aroukatos P, Nakas D, Athanasopoulou A, Kotsikogianni I, Verras D, Damaskou V, Vandoros GP, Repanti M. Epithelial-mesenchymal transition markers and p53 expression in urothelial bladder tumors. *Histopathology* 2008;53 (S1): 269
6. Sotiropoulou N, Bravou V, Damaskou V, Kouneli S, Assimakopoulou M, Papadaki H. VEGFR-3, LYVE-1, PODOPLANIN and CD31 expression in invasive squamous carcinoma of the uterine cervix. *Histopathology* 2008; 53(S1): 202
7. Papanastasopoulos P, Repanti M, Damaskou V, Bravou V, Papadaki H. Correlation of HTERT, c-MYC and HER2/NEU with clinicopathological parameters in prostate adenocarcinoma of peripheral ducts and acini. *Histopathology* 2008; 53 (S1): 284
8. Goulioumis AK, Papadaki H, Bravou V, Goumas P, Varakis J. Intergrin Linked Kinase (ILK) and p-Akt expression in laryngeal cancer. *Virch Archiv* 2008; S1: S176
9. The replication licensing regulator Cdt1 is overexpressed in breast cancer. Symeonidou IE, Bravou V, Papadaki E, Taraviras S, Lygerou Z. *FEBS JOURNAL* 2008; 275 (S1): 115
10. Goulioumis AK, Papadaki H, Bravou V, Varakis J. Intergrin Linked Kinase (ILK) and E-cadherin expression in laryngeal cancer. *Cellular Oncology* 2008;30: 133-191
11. Bravou V, Nishitani H, Song SY, Varakis J, Taraviras S. Implication of Cdt-1 and Geminin in human colon cancer. *International Journal of Molecular Medicine* 2005; 16: S47
12. Bravou V, Ziros P, Taraviras S, Klironomos G, Papadaki E, Papavassiliou AG, Varakis J. Deregulation of ILK signaling in human colon cancer. *International Journal of Molecular Medicine* 2005; 16: S47