

## CURRICULUM VITAE

### Dr. VASSILIKI A. BOUMBA

Assistant Professor of Forensic Medicine & Toxicology

#### PERSONAL DATA

*Name / Surname:* Vassiliki Boumba

*Father's name:* Apostolos

*Date of birth:* May 11, 1965

Affiliation: Laboratory of Forensic Medicine & Toxicology, Faculty of Medicine, School of Health Sciences, University of Ioannina, Ioannina 451 10 Greece

Telephone: +30 2651 0 07724 (office); +30 6974 663683 (cell phone)

*E-mail:* [vboumba@uoi.gr](mailto:vboumba@uoi.gr); [vassiliki.boumba@monash.edu](mailto:vassiliki.boumba@monash.edu)

#### EDUCATION

**1988:** Bachelor Degree in Chemistry, Department of Chemistry, National and Kapodistrian University of Athens, Greece

**1994:** Ph.D. in Biological Chemistry (excellent), Medical School, University of Ioannina. Title of PhD Thesis "Isolation, Structure and Properties of the High Mobility Group Protein 17 (HMG-17) from Pig Thymus"

**1998:** Advanced training in Forensic Toxicology, Laboratory of Forensic Medicine and Toxicology, Medical School, National University of Athens, Greece

#### HONORED POSITIONS

**2016 Jun – Nov:** Sabbatical placement as **(i) Visiting Professor** at the Department of Forensic Medicine, Monash University, (Head Professor Olaf Drummer) and as (guest) **(ii) Research Associate** of the Victorian Institute of Forensic Medicine, under the supervision and co-operation with OD

**2012 Aug:** Visitor Academic at the Section of Legal Medicine of the Department of Public Health and Community Medicine, Faculty of Medicine and Surgery of the University of Verona, Italy, Head: Professor Franco Tagliaro.

#### POSITIONS

**1988- 1994:** Research Fellow, Laboratory of Biological Chemistry, Medical School, University of Ioannina.

**1994-1997:** Post-doctoral Researcher, Laboratory of Biological Chemistry, Medical School, University of Ioannina.

**1998-2010:** Research and Teaching Assistant at the Laboratory of Forensic Medicine & Toxicology, Medical School, University of Ioannina

**1998-today:** Attached at the Laboratory of Forensic Medicine & Toxicology, Medical School, University of Ioannina, as Research Associate and Teaching Assistant (1998-2010); Supervisor of the toxicology sector, covering the fields of forensic, post-mortem and clinical toxicology for the Region of Epirus (2002-today); Academic Staff (2010-today).

#### RESEARCH PROJECTS

**SCIENTIFIC COORDINATOR, 2013 Apr - 2015 Oct:** "Therapeutic antipsychotic and anti-depressive drug monitoring in the blood of psychiatric patients and their correlation to

disease factors” funded by the National Strategic Reference Framework 2007-2013 (NSRF 2007-2013) of the European’s Union Programme for regional development.

**PRIZE FOR RESEARCH PROJECT:** “Purification, and sequence of the porcine high mobility nuclear protein 17 (HMG-17). Autoantibodies directed against it are found in autoimmune rheumatic diseases and correlated with SLE disease activity” by the Athens Medical Society, Athens, May 17 1993.

#### **MAIN EXPERIMENTALIST in RESEARCH PROGRAMS**

**1988 to 1995:** Five research projects in the field of Biological Chemistry funded by the *Greek Secretariat for Research and Technology (GSRT)*.

**1996 to 1997:** RP funded by the *Research Committee of University of Ioannina*.

**1998 to 2009:** RP funded by the *Ministry of Justice*.

**1998-2000:** Research associate at the *National Agricultural Research Foundation of Greece (NAGREF)*.

#### **RESEARCH INTERESTS – KNOWLEDGE**

GENERAL: FORENSIC AND CLINICAL TOXICOLOGY

SPECIFIC: Development / application of analytical methods for forensic and biochemical research; modelling of biochemical processes; postmortem microbial ethanol production; study of intoxications; studies on accumulation of toxicants in human tissues; processing of epidemiological data; novel psychoactive substances (NPS)

#### **LANGUAGES**

Greek (native), English (fluent), German (elementary)

#### **SCIENTIFIC SOCIETIES**

- The International Association of Forensic Toxicologists (TIAFT)
- Forensic and Clinical Toxicology Association (FACTA)
- Hellenic Society of Toxicology
- Hellenic Society of Forensic Sciences
- Hellenic Chemical Society
- Hellenic Society of Biochemistry and Molecular Biology

#### **ADVISORY BOARDS**

- National Committee of Drugs and Pharmacy of the Ministry of Health (2011-2013)
- Local Department of the Hellenic Chemistry Society (2001-2003)

#### **REVIEWER FOR INTERNATIONAL JOURNALS**

Forensic Science International / Current Pharmaceutical Analysis / Pediatrics / International Journal of Clinical Practice / Journal of Analytical Toxicology / Collegium Antropologicum / Journal of Biotechnology / Journal of Chromatography B / Analytical and Bioanalytical Chemistry / Journal of Forensic Toxicology & Pharmacology / Biomedical Chromatography

#### **PUBLICATIONS IN PEER-REVIEWED JOURNALS**

- 1) **Boumba, V.A.**, Di Rago, M., Peka, M., Drummer, O.H., Gerostamoulos, D. The analysis of 132 novel psychoactive substances in human hair using a single step extraction by tandem LC/MS. *Forensic Science International*, **2017**; 279: 192-202.
- 2) Petrikis, P., Voulgari, P.V., Tzallas, A.T., **Boumba, V.A.**, Archimandriti, D.T., Zambetas, D., Papadopoulos, I., Tsoulos, I., Skapinakis, P., Mavreas, V. Changes in the cytokine profile in first-episode, drug-naïve patients with psychosis after short-term antipsychotic treatment. *Psychiatry Research*, **2017**; 256: 378-383.
- 3) **Boumba V.**, My Australian sabbatical experience. *TIAFT Bulletin*, 2017; 47(1): 22-24

- 4) **Boumba VA**, Rallis G, Vougiouklakis T. Poisoning suicide with ingestion of the pyrethroids alpha-cypermethrin and deltamethrin and the antidepressant mirtazapine: a case report. *Forensic Science International*, **2016**; 274: 75-78
- 5) **Boumba VA**, Petrikis P, Rallis G, Vougiouklakis T, Mavreas V. Determination of clozapine, and five antidepressants in human plasma, serum and whole blood by gas chromatography-mass spectrometry: a simple tool for clinical and postmortem toxicological analysis. *Journal of Chromatography B, Analytical Technologies in the Biomedical and Life Sciences*, **2016**; 1038: 43-48
- 6) Rallis G, Petrikis P, **Boumba VA**. Development and Validation of an UHPLC-UV method for the Determination of Agomelatine in Human Plasma and Serum Suitable for Routine Clinical Analysis. *Annals of Chromatography and Separation Techniques* **2016**; 2(2): 1020
- 7) Petrikis P, **Boumba VA**, Tzallas AT, Voulgari PV, Archimandriti DT, Skapinakis P, et al. Elevated levels of Insulin-like Growth Factor-1 (IGF-1) in drug-naïve patients with psychosis. *Psychiatry Research* **2016**;246:348-352.
- 8) Karamanakos PN, Pappas P, **Boumba V**, Vougiouklakis T, Marselos M. The Alcohol Intolerance Produced by Isoniazid Is Not Due to a Disulfiram-Like Reaction Despite Aldehyde Dehydrogenase Inhibition. *Pharmacology* **2016**:267-271.
- 9) M. Baou, **V. A. Boumba**, P. Petrikis, G. Rallis, T. Vougiouklakis, V. Mavreas. A review of genetic alterations in the serotonin pathway and their correlation with psychotic disease and response to atypical antipsychotics. *Schizophrenia Research* **2016**; 170: 18-29.
- 10) K. Fragkouli, **V. Boumba**, T. Vougiouklakis, Survey of medico-legal investigation of homicide in the Region of Epirus (Northwest Greece). *Journal of Forensic and Legal Medicine* **2016**; 37:39-44.
- 11) **V. A. Boumba**, T. Vougiouklakis. Impact of blood collection tubes on erroneous 1-propranolol detection and on forensic ethanol analysis. *Journal of Forensic Toxicology and Pharmacology* **2015**; 4(1)
- 12) G. N. Rallis, **V. A. Boumba**, V. A. Sakkas, K. Fragkouli, G. Siozios, T. A. Albanis, T. Vougiouklakis. Residues of selected polychlorinated biphenyls (PCBs) and organochlorine pesticides (OCPs) in postmortem lungs from Epirus, North-western Greece. *Journal of Toxicology and Environmental Health, Part A*, **2014**; 77:1-9.
- 13) Fragkouli K, Mitselou A, **Boumba V**, Anagnostopoulou E, Soldatou K, Vougiouklakis T. Arrhythmogenic right ventricular cardiomyopathy and sudden death Case report. *Experimental and Clinical Cardiology* **2014**; 20(7): 345-349.
- 14) **Boumba VA**, Kourkoumelis N, Gousia P, Economou V, Papadopoulou C, Vougiouklakis T. Modeling microbial ethanol production by *ER. Coli* under aerobic /anaerobic conditions: Applicability to real postmortem cases and to postmortem blood derived cultures. *Forensic Science International* **2013**; 232:191-98.
- 15) **V.A. Boumba**, M. Georgiadis, N. Mirescu, T. Vougiouklakis Fatal intoxications in a forensic autopsy material from Epirus, Greece, during the period 1998-2010. *Journal of Forensic Sciences*. **2013**; 58, Issue 2: 425-431
- 16) S. Athanaselis, N. Raikos, **V.A. Boumba**, M. Tzatzarakis. Forensic Toxicology in Greece of Crisis and Austerity. *TIAFT Bulletin* **2012**; 42 (3): 7-12
- 17) Fragkouli K, Mitselou A, **Boumba V**, Siozios G, Vougiouklakis T. Unusual death due to a bleeding from a varicose vein: a case report. *BMC Research Notes*. **2012**, 5: 488
- 18) **Boumba VA**, Kourkoumelis N, Ziavrou K, Fragkouli K., Vougiouklakis T. Patterns of the most abundant volatiles detected in post-mortem blood. *Romanian Journal of Legal Medicine*. **2012**; 20: 101-104.
- 19) GN Rallis; V-A Sakkas; **VA Boumba**; T Vougiouklakis; TA Albanis, Determination of organochlorine pesticides and polychlorinated biphenyls in post-mortem human lung by matrix solid-phase dispersion with the aid of response surface methodology and desirability function. *Journal of Chromatography A* **2012**; 1227:1-9.

- 20) Chatziathanasiou GN, Nikas DN, Katsouras CS, Kazakos ND, **Bouba V**, Vougiouklakis T, Naka KK, Michalis LK. Combined Intravenous Treatment with Ascorbic Acid and Desferrioxamine to Reduce Myocardial Reperfusion Injury in an Experimental Model Resembling the Clinical Setting of Primary PCI. *Hellenic J Cardiol.* **2012** 53(3):195-204.
- 21) **Boumba VA** Economou V, Kourkoumelis N, Gousia P, Papadopoulou C, Vougiouklakis T. Microbial ethanol production: Experimental study and multivariate evaluation. *Forensic Science International* **2012**; 215(1-3):189-98
- 22) Fragkouli K, Mitselou A, **Boumba V**, Michalis L, Vougiouklakis T. An autopsy case of necrotizing eosinophilic myocarditis causing left ventricular wall rupture. *Forensic Science Medicine Pathology* **2011**; 7 (4), pp. 350-354.
- 23) T. Vougiouklakis, K. Fragkouli, A. Mitselou, **V. Boumba**, A comparison of the provisional clinical diagnosis of death with autopsy findings. *Romanian Journal of Legal Medicine* **2011**;19(3)177-182.
- 24) Karamanacos, P. , Pappas, P. , **Boumba, V.** , Vougiouklakis, T., Marselos, M. Mechanisms of interactions between ethyl alcohol and pharmaceutical substances. *Clinical Pharmacology and Pharmacokinetics, International Edition* **2010**; 24( 2):153-155
- 25) T. Vougiouklakis, C. Tsiligianni, **V.A. Boumba**. Children, adolescents and young adults suicide data from Epirus, North-Western Greece. *Forensic Science, Medicine and Pathology.* **2009**; 5(4): 269-273.
- 26) Vougiouklakis T, Mitselou A, Batistatou A, **Boumba V**, Charalabopoulos K. Fatal pulmonary peliosis without any other organ involvement in a young adult bodybuilder. *Forensic Science International* **2009**; 186(1-3): e13-16.
- 27) Nikas DN, Chatziathanasiou G, Kotsia A, Papamichael N, Thomas C, Naka K, Kazakos N, Milionis H, Vakalis K, Katsouras C, **Mpoumpa V**, Michalis L. Effect of intravenous administration of antioxidants alone and in combination on myocardial reperfusion injury in an experimental pig model. *Current Therapeutic Research* **2008**; 69 (5): 423-439
- 28) **V.A. Boumba**,K.S. Ziavrou, T. Vougiouklakis. Biochemical Pathways Generating Postmortem Volatile Compounds Co-Detected During Forensic Ethanol Analyses . *Forensic Science International* **2008**; 174(2-3):133-151.
- 29) Karamanacos PN and P Pappas, **VA Boumba**, C Thomas, M Malamas, T Vougiouklakis, M Marselos. Pharmaceutical agents known to produce disulfiram-like reaction: effects on hepatic ethanol metabolism and brain monoamines. *International Journal of Toxicology* **2007**; 26(5): 423-432.
- 30) G. Pentheroudakis, P. Pappas,V. Golfinopoulos, G. Fountzilias, M. Nikolaidou, **V.A. Boumba**, T. Vougiouklakis, L. Nikiforidis, E. Tzamakou, O. Siarabi , M. Marselos, N. Pavlidis. Weekday on- weekend off oral capecitabine: A Phase I study of a continuous schedule better simulating protracted fluoropyrimidine therapy. *Cancer Chemotherapy and Pharmacology* **2007**; 60(5): 733-739.
- 31) Vougiouklakis, T, **Boumba, VA**, Mitselou, A. Fatal poisonings in the region of Epirus, Greece, during the period 1998-2004. *Journal of Clinical Forensic Medicine* **2006**; 13: 321-325.
- 32) **VA. Boumba**, K.S. Ziavrou, T. Vougiouklakis. Hair as a Biological Indicator of Drug Use, Drug Abuse or Chronic Exposure to Environmental Toxicants. *International Journal of Toxicology* **2006**; 25: 143-163.
- 33) **V.A Boumba**, T. Vougiouklakis Evaluation of the methods used for carboxyhemoglobin analysis in post mortem blood. *International Journal of Toxicology* **2005**; 24: 275-281.
- 34) K.S. Ziavrou, **VA. Boumba**, T. Vougiouklakis. Insights into the origin of post mortem ethanol. *International Journal of Toxicology* **2005**; 24: 69-77.
- 35) Vougiouklakis T, **Boumba VA**, Mitselou A, Peschos D, Gerontopoulos K. Trends in suicide mortality in the deprived region of Epirus (north-west Greece) during the period 1998-2002. *Medicine, Science, and the Law* **2005**; 45: 39-46.

- 36) **Boumba V.A.**, Seferiadis K., Vougiouklakis T. Content of the HMG-17 chromosomal protein in porcine tissues. *Protein and Peptide Letters* **2004**; 11: 515-519.
- 37) **V.A. Boumba**, A. Mitselou, T. Vougiouklakis. Fatal poisoning from ingestion of *Datura Stramonium* seeds. *Veterinary and Human Toxicology* **2004**; 46: 81-82.
- 38) Malatou H., Pappa E., **Boumba V.A.** Proteolysis in teleme cheese made from ewes, goats or mixture of ewes and goats milk. *International Dairy Journal* **2004** ; 14: 977-987.
- 39) A.Mitselou, T.Vougiouklakis, D.Peschos, P.Dallas, **V.Boumba**, N. Agnantis. Immunohistochemical Study of Thyroid Lesions Using S-100 Protein, Epithelial Membrane Antigen, Cytokeratin and Cardioembryonic Antigen. *Anticancer Research* **2002**; 22: 1777-1780.
- 40) **Boumba V.A.**, Seferiadis K. Rabbit anti-HMG-17 Antibodies Recognize Similar Epitopes on the HMG-17 Molecule as Lupus Autoantibodies. Relation with Histone H1 Defined Epitopes. *Journal of Peptide Science* **2002**; 8(12): 683-694.
- 41) **Boumba V.A.**, Voutsinas L.P., Philipopoulos C.D. Composition and nutritional value of commercial dried whey products from feta cheese manufacture. *International Journal of Dairy Technology* **2001**; 54: 141-145.
- 42) A. Mitselou, T. Vougiouklakis, D. Peschos, **V.A. Boumba**, N. J. Agnantis. Autopsy findings in clinically normal thyroids, with emphasis in Occult Thyroid Carcinoma. A study in Northwestern Greek population. *Romanian Journal of Endocrinology and Metabolism* **2001**; 1(1): 63-70.
- 43) Vlachoyiannopoulos PG, **Boumba VA**, Tzioufas AG, Seferiadis K, Tsolas O, Moutsopoulos HM. Autoantibodies to HMG-17 Nucleosomal Protein in Patients with Scleroderma. *Journal of Autoimmunity* **1994**; 7: 193-201.
- 44) Tzioufas AG, **Boumba VA**, Seferiadis K, Tsolas O, Moutsopoulos HM. Autoantibodies to HMG-17 nucleosomal protein in autoimmune diseases: correlation with systemic lupus erythematosus clinical activity and antibodies to double stranded DNA. *Arthritis Rheumatism* **1993**; 36: 955-961.
- 45) **Boumba VA**, Tsolas O, Choli-Papadopoulou D, Seferiadis K. Isolation by a new method and sequence analysis of chromosomal HMG-17 protein from porcine thymus. *Archives of Biochemistry and Biophysics* **1993**; 303: 436-442.

#### SHORT PUBLICATIONS

46. **V.A. Boumba** External-cause mortality in young people aged 10-24 years during 1998-2016 in Epirus, Greece. George T. Vougiouklakis, Kleio Fragkouli, Theodore Vougiouklakis, *Forensic Science International* **2017**; 177 (S1): 4.
47. **V. Boumba**, K. Fragkouli, T. Vougiouklakis Presence of ethanol in suicidal deaths: a 12 year study in Epirus, North-western Greece. *Toxichem Krimtech - Toxicologische und Forensische Chemie* **2010**; 77(3): 255.
48. **V. Boumba**, V. Oikonomou, P.Gousia, C.Papadopoulou, T. Vougiouklakis. Microbial ethanol production: experimental study and multivariate evaluation. *Toxichem Krimtech - Toxicologische und Forensische Chemie* **2010** ; 77(3) : 256.
49. **V. A. Boumba**, K. Ziavrou, T. Vougiouklakis. Patterns of volatile detected during forensic ethanol analysis in autopsy blood samples from violent deaths. *Annales de Toxicologie Analytique* **2009**;21: s145.
50. **V. Boumba**, K. Ziavrou, V. Manti, T. Vougiouklakis. Patterns of volatiles detected during forensic ethanol analysis: A preliminary study in autopsy blood samples. *Toxicology Letters* **2008**; 180S: s230-s231.
51. Tzioufas AG, **Boumba VA**, Seferiadis K, Tsolas O, Moutsopoulos HM. Purification, and sequence of the porcine high mobility nuclear protein 17 (HMG-17). Autoantibodies directed against it are found in autoimmune rheumatic diseases and correlated with SLE disease activity. *Clinical Rheumatology* **1992**; 11(1):135.

52. Tzioufas AG, **Boumba VA**, Seferiadis K, Tsolas O, Moutsopoulos HM. Autoantibodies to high mobility nuclear protein 17 (HMG-17) in autoimmune rheumatic diseases. Correlation with SLE disease activity and anti-DNA levels. *Lupus* **1992**; 1(1):128.

53. Tzioufas AG, **Boumba VA**, Seferiadis K, Tsolas O, Moutsopoulos HM. Autoantibodies to nucleosomal non-histone protein HMG-17 are correlated with systemic lupus erythematosus disease activity and anti-ds-DNA antibodies. *Arthritis Rheumatism* **1992**; 35: 5214.

**5 / 37 ABSTRACTS IN PROCEEDINGS OF INTERNATIONAL CONFERENCES related to the project**

54) M. Di Rago, M. Peka, O. H. Drummer, D. Gerostamoulos, **V. A. Boumba**. Analysis of 132 novel psychoactive substances (NPS) by tandem LC/MS in hair. *Forensic and Clinical Toxicology Association (FACTA) 2017, November 19-22, 2017, Melbourne, Australia. Oral Presentation (OP17)*.

**55) V.A. Boumba**, M. Di Rago, M. Peka, O. H. Drummer, D. Gerostamoulos. A new method for human hair analysis of 132 various types of novel psychoactive substances (NPS) by tandem LC/MS. *SOFT/TIAFT 2017 Annual Meeting, Boca Raton, Florida*.

56) **V. A. Boumba**, O. H. Drummer, D. Gerostamoulos. The analytical challenge of detecting new psychoactive substances. 67<sup>th</sup> Panhellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB), 25-27 November 2016, Ioannina, Greece.

57) **V. A. Boumba**, Georgios Rallis, Petros Petrikis, Venetsanos Mavreas, Theodoros Vougiouklakis. Simultaneous determination of bupropion, citalopram, fluvoxamine and sertraline in human serum by GC/MS with solid-phase extraction. 53rd Annual Meeting of The International Association of Forensic Toxicologists (TIAFT 2015), August 30- September 4, **2015**, Firenze, Italy.

58) **V. A. Boumba**. Feasibility in the estimation of the microbially produced ethanol in postmortem cases by mathematical models. 53rd Annual Meeting of The International Association of Forensic Toxicologists (TIAFT 2015), August 30- September 4, **2015**, Firenze, Italy.

**Scientific publications, synopsis**

Full Publications	45
Short Publications	8
Abstracts Internat. Conference Proceedings	37
Journal Impact factors, sum	111.47
Total Citations (Scopus, Jan 13-2018)	469
H index (Scopus, Jan 13-2018)	12