

# Curriculum Vitae Paraskevi (Vivian) Kalamara, MSc

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✉ [viviankal4@gmail.com](mailto:viviankal4@gmail.com) | Date of birth 10/05/1991 | Nationality Greek

## Career Objective

I am holding a Master's degree in Forensic Science and I am currently working as a Research Analyst at Erasmus University Medical Center in Rotterdam. I am seeking for an interesting and challenging PhD position in the field of Biomedical Sciences, to build on strong technical and research experience. I am a highly motivated and curious person, who is passionate about research. I am a quick learner with excellent organizational and team skills. I am easily adaptive to new research environments, new techniques and scientific topics, which can be supported by my research career so far. My ambition is to gain expertise in DNA damage and the relevance with innate immune system and ageing through my scientific work and contribute to relevant societal issues.

## EDUCATION

**Forensic Science, MSc** Aug 2015– Aug 2017  
**University of Amsterdam, Faculty of Sciences | Amsterdam, The Netherlands**  
Majoring in Forensic Biology, Grade: 7,2/10

**Biology, BSc** Sep 2009–Jan 2015  
**Aristotle University of Thessaloniki, Faculty of Sciences | Thessaloniki, Greece**  
Majoring in Genetics, Molecular and Developmental Biology, Grade: 7,73/10

**Erasmus Fellowship** Sep 2013–Jan 2014  
**University of Liege, Department of Life sciences | Liege, Belgium**  
Majoring in Genetics and evolutionary biology, Grade: (8/10)  
Successfully followed 6 Master level courses

**Secondary Education** 2007–2009  
**High School of Orchomenos | Orchomenos, Greece**  
Majoring in Science, Grade: 19,6 /20

## AWARDS & SCHOLARSHIPS

**250 Jubilee Scientific competition (€ 10,000, Co-applicant; responsible for data collection)** 2019  
**as part of the "I Lab U" team (Coordinator: Dr. Athina Vidaki)**  
Batavian Society of Experimental Philosophy, Rotterdam, The Netherlands

**Erasmus + Scholarship (€ 2,500)** 2013–2014  
University of Thessaloniki for studying in the University of Liege, Belgium

## RESEARCH EXPERIENCE

**Research Analyst** May 2018-Present  
**Erasmus University Medical Center Rotterdam (EMC) | Rotterdam, The Netherlands**  
**Department of Genetic Identification (Head: Prof. Dr. Manfred Kayser)**

Duties/Projects

- i) **Lab tool for bisulfite DNA quantification/qualification / Own project** | Supervisor: Dr. Athina Vidaki
- *In silico* primer and probe design for genomic and bisulfite-converted DNA
  - Experimental design for optimization and validation of selected quantitative (q)PCR assays
  - Development, optimization and validation of a multiplex qPCR
  - Executing several DNA isolation and bisulfite conversion protocols
  - Applying several DNA quantification methods as: qPCR, Bioanalyzer, Picogreen, Qubit, Nanodrop, gel electrophoresis
  - qPCR data analysis, Scientific writing

**Research Paper in Prep: Kalamara V., Kayser M., Vidaki A. qBiCo: A Novel Method for the combined accurate assessment of bisulfite-converted DNA quality and quantity.**

**ii) VISAGE Consortium | Scientific Personnel** | Supervisor: Prof. Dr. Manfred Kayser

- Performing forensic developmental validation by means of massive parallel sequencing (Ion Torrent S5, ThermoFisher Scientific) for the combined analysis of appearance and ancestry with DNA biomarkers

**Research Paper to be submitted in 2020:** C. Xavier, M. de la Puente, A. Mosquera-Miguel, A. Freire-Aradas, **V. Kalamara**, A. Vidaki, T. Gross, A. Revoir, E. Pośpiech, E. Kartasińska, M. Spólnicka, W. Branicki, C. E. Ames, P. Schneider, C. Hohoff, M. Kayser, C. Phillips, W. Parson on behalf of the VISAGE Consortium. Development and validation of the VISAGE AmpliSeq Basic Tool to predict appearance and ancestry from DNA.

**iii) Lab tool for smoking prediction based on DNA methylation** | Supervisor: Dr. Athina Vidaki

- Sample preparation, DNA extraction, DNA quantification and bisulfite conversion
- Applying next generation sequencing (Miseq, Illumina) and qPCR for detecting previously identified, smoking-associated DNA methylation biomarkers

**iv) Validation of the GSA SNP microarray performance with compromised DNA quality/quantity** | Supervisors: Dr. Athina Vidaki, Prof. Dr. Manfred Kayser

- Sample preparation for a degradation study by means of restriction enzymes, UV radiation, sonication and mock forensic-type samples
- DNA quantification and qualification with qPCR and bioanalyzer

**Research Paper to be submitted in 2020:** J. H. de Vries, D. Kling, A. Vidaki, P. P. Arp, **V. Kalamara**, M. M.P.J. Verbiest, W. Branicki, T. Parsons, A. G. Uitterlinden, and M. Kayser. Empirically exploring the suitability of SNP microarray analysis for relative identification in forensics.

**v) Validation of of epigenetic-based tools | Collaboration** | Supervisor: Dr. Athina Vidaki

- DNA extraction, DNA quantification and bisulfite conversion
- Bisulfite-PCR, agarose gel electrophoresis
- SNaPshot minisequencing and capillary electrophoresis

**Research Paper to be published:** Co- Author

**Research Intern (MSc)**

Jan 2017–Aug 2017

**Erasmus University Medical Center Rotterdam (EMC) | Rotterdam, The Netherlands**  
**Department of Genetic Identification (Head: Prof. Dr. Manfred Kayser)**

Duties/Projects

**Epigenetic discrimination of monozygotic twins by using epigenetic biomarkers** | Supervisor: Dr. Athina Vidaki

- In-silico primer and probe design for genomic and bisulfite-converted DNA
- Epigenetic marker selection from normalized Illumina 450K array DNA methylation data
- Optimization and validation of methylation-specific qPCR –based assays for candidate twin-differentiating biomarkers
- Analysis and reporting of qPCR data
- Laboratory organization

**Published Research Paper:** Vidaki A., **Kalamara V.**, Camero-Montoro E., Spector D.T., Bell T.J., Kayser M. (2018), Investigating the Epigenetic Discrimination of Identical Twins Using Buccal Swabs, Saliva, and Cigarette Butts in the Forensic Setting. **GENES**, 9(5): 252.

**Research master student**

Oct 2017–Nov 2017

**University of Amsterdam (UvA) |Amsterdam, The Netherlands**

Duties/Projects

**Literature Review: Application of Next Generation Sequencing for DNA methylation Analysis** |

Supervisor: Prof. Dr. Ate Kloosterman, Dr. Jana Naue

- Review of research papers for comparing different methods for DNA methylation analysis
- Presentation of literature thesis

**Research fellow Intern (Erasmus + Scholarship)**  
University of Liege| Liege, Belgium  
Department of Life Sciences (Head: Prof. Dr. Johan Michaux)

Sep 2013–Jan 2014

Duties/Projects

**Phylogenetic and Phylogeographic structure of 6 endemic rodent species of the South East Asian region using different molecular markers (mitochondrial and nuclear genes).** | Supervisor: Prof. Dr. Johan Michaux

- DNA extraction, quantification, gel electrophoresis and PCR
- Data analysis of anger sequencing by means of SeqScape software

**Research Intern (BSc)**

Sep 2011–Mar 2013

Aristotle University of Thessaloniki | Thessaloniki, Greece  
Department of Genetics, Molecular and Developmental Biology (Head: Prof. Dr. Penelopi Mavragani)

Duties/Projects

**Genotoxic and Antigenotoxic Assessment of Chios Mastic Oil by the In Vivo Wing Somatic Test on Drosophila** | Supervisor: Prof. Dr. Penelopi Mavragani

- Application of the S.M.A.R.T (Somatic Mutation And Recombination Test) method for the assessment of genotoxic and antigenotoxic activity of chemical compounds like MMC and Mastic oil.
- Conservation of *Drosophila melanogaster* population
- Examination of genotoxic/antigenotoxic activity by using compound microscope.

**Published Research Paper:** Vlastos, D., Drosopoulou, E., Efthimiou, I., Gavriilidis, M., Panagaki, D., Mpatziou, K., Kalamara, P., Mademtoglou, D. and Mavragani-Tsipidou, P. (2015). Genotoxic and Antigenotoxic Assessment of Chios Mastic Oil by the In Vitro Micronucleus Test on Human Lymphocytes and the In Vivo Wing Somatic Test on *Drosophila*. **PLOS ONE**, 10(6).

## RELEVANT WORK EXPERIENCE

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**Genetic Laboratory Analyst**  
GenomeScan B.V | Leiden, The Netherlands  
Department of Next generation sequencing

Sept 2017–April 2018

Duties/Projects

- DNA, RNA, DNA methylation library preparation and sequencing (Illumina platforms, NovaSeq, NextSeq, HiSeq)
- Exome and targeted sequencing
- Infinium 850K methylation arrays
- Applying Quality controls (QC) by using Fragment Analyzer and bioanalyzer
- Lab support and management

**Medical Laboratory Intern**  
Euromedica Group SA | Thessaloniki, Greece  
Microbiology Laboratory

Jul 2013–Aug 2013

Duties/Projects

**Review of detection methods for Hepatitis B**

- Applying ELISA immunoassay for detection of Hepatitis B epitopes
- Blood samples from patients

## ADDITIONAL INFORMATION

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- Language(s)** **Greek** – Mother tongue, **English** – Fluent Speaker (Michigan Proficiency, IELTS)
- Computer Skills** Proficient user of Microsoft Office, Elementary user of R studio
- Presentations (oral)** **“Genotoxic and Antigenotoxic Assessment of Chios Mastic Oil by the In Vitro Micronucleus Test on Human Lymphocytes and the In Vivo Wing Somatic Test on Drosophila.”**, presenter  
35<sup>th</sup> Annual Congress of Greek Society of Biological Sciences Congress, Nafplion | 2013.
- Abstracts** **“Epigenetic discrimination of monozygotic twins in forensics: testing the influence of the DNA source”**, co-author to the following Congresses:  
Twins Congress, Madrid | 2017  
10<sup>th</sup> Conference of International Society for Applied Biological Sciences, Dubrovnik, Croatia | 2017  
27<sup>th</sup> Congress of the International Society for Forensic Genetics, Seoul, South Korea | 2017  
**“QBICO: A novel lab tool for the combined accurate assessment of bisulfite converted DNA quality and quantity in forensic epigenetic applications”** co-author to the following Congress:  
28<sup>th</sup> Congress of the International Society for Forensic Genetics, Prague, Czech Republic | 2019
- Conferences** 28<sup>th</sup> Congress of the International Society for Forensic Genetics, Prague, Czech Republic | 2019  
Symposium in Molecular Medicine Epigenetics: Basic principles and clinical applications, Cologne, Germany | 2018  
Symposium on Translational Epigenetics, Mainz, Germany | 2017  
65<sup>th</sup> Annual Congress of Hellenic Society of Biochemistry and Molecular Biology, Thessaloniki, Greece | 2014  
36<sup>th</sup> Annual Congress of Greek Society of Biological Sciences, Ioannina, Greece | 2014  
35<sup>th</sup> Annual Congress of Greek Society of Biological Sciences, Nafplio, Greece | 2013  
33<sup>rd</sup> Annual Congress of Greek Society of Biological Sciences, Edessa, Greece | 2011
- References** Dr. Athina Vidaki: Postdoctoral Research Fellow. Erasmus University Medical Center Rotterdam | E-mail: [a.vidaki@erasmusmc.nl](mailto:a.vidaki@erasmusmc.nl)  
Prof. Dr. Ate Kloosterman: Institute of Biodiversity and Ecosystem Dynamics- IBED, University of Amsterdam (UvA) | E-mail: [a.kloosterman@nfi.nl](mailto:a.kloosterman@nfi.nl)