

# Curriculum Vitae



## Dr. Dimitrios P. Vlachakis

*BSc, MSc, MPhil, PhD, MRSB, MRSC, MRSM (UK)*  
**Assistant Professor in Genetics, AUA**



### PERSONAL INFORMATION

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Name: **Dimitrios P. Vlachakis**  
Position: **Assistant Professor in Genetics**  
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Work Address: 75 Iera Odos, 11855, Athens  
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### ACADEMIC APPOINTMENTS

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Φεβ. 2018 – today



**Assistant Professor**  
**Agricultural University of Athens**  
**Genetics and Computational Biology Group**  
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Οκτ. 2018 – today



**Affiliated Researcher**  
**Molecular Endocrinology Lab**  
**Clinical, Experimental Surgery and Translational Research**  
**Biomedical Research Foundation, Academy of Athens**  
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Email: [dvlachakis@bioacademy.gr](mailto:dvlachakis@bioacademy.gr)

### EDUCATION

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**PhD**  
**Computer aided drug design and biological evaluation of novel antiviral agents**  
Cardiff University, Wales, United Kingdom  
Full 36-month Scholarship



**Master's Degree**  
**Molecular Modelling**  
Cardiff University, Wales, United Kingdom  
Full 12-month EPSRC Scholarship



**BSc (Hons) Degree**  
**Biology with Biochemistry**  
Bedfordshire University, London, England, United Kingdom  
Grade: 7,62

**FUNDING as COORDINATOR (the last 2 years)**

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- 2020 A novel pipeline to enrich formula milk using omics technologies / Funding: 1000000 €
- 2019 Biochemical Adjustments of native EBOV Glycoprotein in Patient Sample to Unmask target-Epitopes for Rapid Diagnostic Testing / Funding: 500000 €
- 2018 AWS Amazon Cloud Computing for Genomics – Rational, structure based drug design of novel, low molecular weight, anti-helicase agents for Zika virus / Funding: 10000 €
- 2018 Microsoft Genomics Grant – Computer aided drug design of novel antiviral agents against Zika virus, using big genomic and structural data / Funding: 10000 €

**SCIENTIFIC PUBLICATIONS IN INTERNATIONAL PEER REVIEWED JOURNALS – representatives from a total of 151 articles so far**

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- Guerra J, Valadao AL, **Vlachakis D**, Polak K, Vila IK, Taffoni C, Prabakaran T, Marriott AS, Kaczmarek R, Houel A, Auzemery B, Déjardin S, Boudinot P, Nawrot B, Jones NJ, Paludan SR, Kossida S, Langevin C, Laguette N. Lysyl-tRNA synthetase produces diadenosine tetraphosphate to curb STING-dependent inflammation. **Science Advances**. 2020, (3) 10; e1700495, DOI: 10.1126/sciadv.1700495
  - Antoniou N, **Vlachakis D**, Memou A, Leandrou E, Valkimadi PE, Melachroinou K, Re DB, Przedborski S, Dauer WT, Stefanis L, Rideout HJ. A motif within the armadillo repeat of Parkinson's-linked LRRK2 interacts with FADD to hijack the extrinsic death pathway. **Scientific Reports (NPG)**. 2018 (8):3455
  - **Vlachakis D**, Labrou NE, Iliopoulos C, Hardy J, Lewis PA, Rideout H, Trabzuni D. Insights into the Influence of Specific Splicing Events on the Structural Organization of LRRK2. **Int. J. Mol. Sci**. 2018, 19(9), 2784
  - Papageorgiou L, Megalooikonomou V, **Vlachakis D**. Genetic and structural study of DNA-directed RNA polymerase II of Trypanosoma brucei, towards the designing of novel antiparasitic agents. **PeerJ**. 2017, 5:e3061
  - Papageorgiou L, Loukatou S, Kossida S, Maroulis D, **Vlachakis D**. An updated evolutionary study of Flaviviridae NS3 helicase and NS5 RNA-dependent RNA polymerase, reveals novel invariable motifs as potential pharmacological targets. **Royal Society Chemistry: Molecular Biosystems**. 2016, 12(7):2080-93.
  - Papageorgiou L, Cuong NT, **Vlachakis D**. Antibodies as stratagems against cancer. **Royal Society Chemistry: Molecular Biosystems**. 2016, 12(7):2047-55
  - Tsiliki G, **Vlachakis D**, Kossida S, On integrating multi-platform microarray data, **Phyl Trans R Soc A** 2014 20130136
  - Dalkas G\*, **Vlachakis D\***, Tsagkrasoulis D, Kastania A, Kossida S, State of the art technology in modern computer-aided drug design, **Briefings in Bioinformatics** 2013 14(6):745-752
  - **Vlachakis D**, Kossida S, Molecular modelling and pharmacophore elucidation study of the Classical Swine Fever virus helicase as a promising pharmacological target, **PeerJ** 2013 1:e85
  - **Vlachakis D**, Koumandou VL, Kossida S, A holistic evolutionary and structural study of flaviviridae provides insights into the function and inhibition of HCV Helicase, **PeerJ** 2013,1:e74
  - **Vlachakis D**, Tsagkrasoulis D, Megalooikonomou V, Kossida S, Introducing Drugster: a comprehensive drug design, lead and structure optimization toolkit, **Bioinformatics** 2013 29(1):126-128
  - **Vlachakis D**, Theoretical study of the Usutu virus helicase 3D structure, by means of computer-aided homology modelling, **Theor Biol Med Model** 2009 25;6:9,1-9

**INTERNATIONAL PATENTS**

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- **WO/2009/125191** – 15.10.2009 (Pub) – PCT/GB2009/000936 – 09.04.2009 **INTERNATIONAL PATENT HCV ANTIVIRAL DRUG DESIGN, BENZENE DERIVATIVES** -Brancale A, **Vlachakis D**, Berry C, Neyts J.
  - **GR/2012/0100266** – 21.05.2012 (Pub) – 201201605 – 21.05.2012 Αριθμός Ευρεσιτεχνίας: 1007978 **3D PHARMACOPHORE FOR THE DESIGN OF HUMAN POLYADENOSINE RIBONUCLEASE INHIBITORS**. Kossida S, **Vlachakis D**, Tsiliki G, Pavlopoulou A.