

PERSONAL INFORMATION	Emmanouil Alexandros (Max) Fotakis
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	Sex Male   Date of birth Nationality Greek, English
IOD/ POOLTION	
JOB/ POSITION APPLIED FOR	Cohort 2022 ECDC Fellowship Programme EPIET
WORK EXPERIENCE	
07.2020 – to date	Postdoctoral Researcher
	Institute of Molecular Biology and Biotechnology (IMBB)-FORTH, Crete, Greece
	<ul> <li>Investigation of pathogen occurrences/infections, species composition and insecticide resistance status in sand fly populations from leishmaniasis endemic and other high transmission risk settings in the Mediterranean Basin</li> <li>IT tool development for supporting vector/VBD surveillance and control in the Mediterranean Basin (VectorMap-GR)</li> <li>Scientific project management of integrative entomological studies in Greece, Italy, Turkey, Kenya, Cameroon, Armenia, for generating evidence based public health actions</li> <li>Conceptualization of studies focusing on the insecticide resistance status/underlying mechanisms and monitoring of pathogens in mosquitoes and sand flies</li> <li>Networking with European and oversea partner's/establishing scientific collaborations</li> <li>IT tool development for agricultural pest control in Greece</li> </ul>
	Manuscript preparation for publication(s)     Report and proposal writing
06.2018 - to date	Scientific manager
	General Directorate of Public Health & Social Care of Region of Crete, Greece
	• Scientific design of a regional (five year) mosquito surveillance and control program in Crete, Greece
	<ul> <li>Co-evaluation of entomological and pathogen surveillance findings</li> </ul>
	<ul> <li>Communication between key stakeholders (i.e. public health directorates, vector control agencies, research/diagnostic laboratories)</li> </ul>
	Data curation
	Data transformation into actionable information
	Report preparation
06.2021 - 07.2021	Visiting (field) scientist
	International Centre of Insect Physiology and Ecology, Nairobi, Kenya
	<ul> <li>Indoor and outdoor sand fly and mosquito field collections from leishmaniasis and malaria endemic regions (respectively)</li> <li>Pathogen detection, bioassay and insecticide resistance molecular analyses</li> </ul>
06.2019 - 07.2019	Visiting (field) scientist
	Ege University, Faculty of Science, Department of Biology, Turkey
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- Sand fly collections from Sanliurfa (the largest and most important focus of CL in Turkey)
- Morphological species identification
- Sand fly rearing
- IR molecular analyses

#### 06.2015 - 08.2015

Visiting (field) scientist

Ifakara Health Institute, Tanzania

- Control of malaria vector mosquitoes by insecticide-treated combinations of window screens and eave baffles, in southern Tanzania
- Managing experimental hut preparations
- Involvement in experimental design
- Managing 1<sup>st</sup> phase intervention trials

#### 05.2014 - 10.2014

Visiting (field) scientist

USDA-ARS European Biological Control Laboratory, Thessaloniki, Greece

- Mosquito surveillance and control in the region of Central Macedonia
- Systematic mosquito surveillance
- Species identification
- Insecticide resistance analyses

#### **EDUCATION AND TRAINING**

#### 09.2020 - 07.2022

### MSc in Public Health candidate

Level 7

Department of Public Health Policy, School of Public Health, University of West Attica, Greece

Principal subjects

- Biostatistics
- Epidemiology
- Health Promotion
- Methodology of epidemiological surveillance
- Environment and Health
- Public Health and Public Health Policy(-ies)
- Communication strategies
- Strategic planning and economic evaluation of public health interventions

#### -Thesis

Evaluation of VBD epidemiological surveillance efforts in Greece: A proposed framework for driving evidence based public health policies and actions

#### 11.2016 - 07.2020

# PhD degree in Vector Borne Disease surveillance and control

Level 8

Department of Crop Science/ School of Plant Sciences/ Agricultural University of Athens, Greece

-PhD dissertation: Integrated management of Vector Borne Diseases in conditions of humanitarian crisis with emphasis on vector control: the Refugee example of Greece.

Principal subjects covered/skills acquired:

- Identification and detection of insecticide resistance mechanisms in mosquitoes and sand flies (relevant publications)
- Integrated vector surveillance in refugee camps, Greece (relevant publications)
- Information technology tools for evidence based vector control: VectorMap-GR, a local scale operational management tool for entomological monitoring data (relevant publication)
- Work/Conference Presentations
- Research paper writing
- Proposal and report writing

#### 10.2013 - 01.2016

## MSc in Molecular Biology and Biomedicine

Level 7

Department of Biology, Department of Medicine/University of Crete, Greece

-Thesis: Analysis of population structure and insecticide resistance in mosquitoes of the genus Culex, Anopheles and Aedes from different environments in Greece.

#### Principal subjects covered/skills acquired

- Extensive training in filed techniques for mosquito handling, trapping and systematic surveillance
- · Extensive training in insecticide resistance bioassays
- Extensive training in molecular analyses for pathogen detection and pathogen species identification, vector species identification, and analysis of insecticide resistance traits and underlying mechanisms

09.2009 - 07.2013

# BSc in Biology

Level 6

Department of Biology, University of Crete, Greece,

Principal subjects

- Zoology
- Physiology
- Biomathematics
- Biochemistry
- Cellular biology
- Microbiology
- Ecology
- Molecular Biology
- Genetics
- Immunology
- Biotechnology
- Evolutionary biology

### PERSONAL SKILLS

Mother tongue(s)

Greek, English

Communication skills

- good communication skills gained through
- -my experience in different laboratory and field settings in a number of countries
- -my participation in projects and working-groups of multiple scientific backgrounds
- -presenting my scientific work in a number of conferences
- -holding/leading a series of group meetings

#### Organisational / managerial skills

- coordination, multi-tasking, leadership, decision-making, problem-solving, motivating, gained through
  - -my heavy workload as a PhD student
  - -supervision of master and PhD students
  - -establishing scientific collaborations
  - -planning and coordination of research studies in Europe and Africa
  - -planning and coordination of a mosquito surveillance/control program in Greece

### Computer skills

#### Command of:

- Microsoft Office tools
- Google Drive
- Presentations/slideshows
- Email
- Data handling
- Writing skills
- R and SPSS statistical software platforms

Driving licence

Category B

ADDITIONAL INFORMATION



Publications (Selected entries)

- Emmanouil A. Fotakis, Manolis Orfanos, Thodoris Kouleris, Panagiotis Stamatelopoulos, Zisis Tsiropoulos, Anastasia Kampouraki, Ilias Kioulos, Konstantinos Mavridis, Alexandra Chaskopoulou, George Koliopoulos, John Vontas (2021). VectorMap-GR: A local scale operational management tool for entomological monitoring, to support vector control activities in Greece and the Mediterranean Basin, CRPVBD. In press
- Balaska S, Fotakis EA, Chaskopoulou A, Vontas J. Chemical control and insecticide resistance status of sand fly vectors worldwide. PLoS Negl Trop Dis. 2021 Aug 12;15(8):e0009586. doi: 10.1371/journal.pntd.0009586. PMID: 34383751; PMCID: PMC8360369.
- Balaska S, Fotakis E.A, Kioulos I, Grigoraki L, Mpellou S, Chaskopoulou A, Vontas J. Bioassay and molecular monitoring of insecticide resistance status in Aedes albopictus populations from Greece, to support evidence-based vector control. Parasit Vectors. 2020 Jun 29;13(1):328. doi: 10.1186/s13071-020-04204-0. PMID: 32600453; PMCID: PMC7325023.
- Fotakis EA, Mastrantonio V, Grigoraki L, Porretta D, Puggioli A, Chaskopoulou A, Osório H, Weill M, Bellini R, Urbanelli S, Vontas J. Identification and detection of a novel point mutation in the Chitin Synthase gene of Culex pipiens associated with diflubenzuron resistance. PLoS Negl Trop Dis. 2020 May 1;14(5):e0008284. doi: 10.1371/journal.pntd.0008284. PMID: 32357192; PMCID: PMC7219787.
- Fotakis EA, Giantsis IA, Castells Sierra J, Tanti F, Balaska S, Mavridis K, Kourtidis S, Vontas J, Chaskopoulou A. Population dynamics, pathogen detection and insecticide resistance of mosquito and sand fly in refugee camps, Greece. Infect Dis Poverty. 2020 Mar 18;9(1):30. doi: 10.1186/s40249-020-0635-4. PMID: 32183909; PMCID: PMC7079361.
- Porretta D, Fotakis E.A, Mastrantonio V, Chaskopoulou A, Michaelakis A, Kioulos I, Weill M, Urbanelli S, Vontas J, Bellini R. Focal distribution of diflubenzuron resistance mutations in Culex pipiens mosquitoes from Northern Italy. Acta Trop. 2019 May;193:106-112. doi: 10.1016/j.actatropica.2019.02.024. Epub 2019 Feb 27. PMID: 30825446.
- Fotakis EA, Giantsis IA, Avgerinou A, Kourtidis S, Agathaggeliclou E, Kapoula C, Dadakou G, Vontas J, Chaskopoulou A. Identification of Leishmania Species in Naturally Infected Sand Flies from Refugee Camps, Greece. Emerg Infect Dis. 2019 Feb;25(2):361-364. doi: 10.3201/eid2502.181359. Epub 2019 Feb 17. PMID: 30346269; PMCID: PMC6346468.
- Fotakis EA, Giantsis IA, Demir S, Vontas JG, Chaskopoulou A. Detection of Pyrethroid Resistance Mutations in the Major Leishmaniasis Vector Phlebotomus papatasi. J Med Entomol. 2018 Aug 29;55(5):1225-1230. doi: 10.1093/jme/tjy066. PMID: 29912381.
- Mavridis K, Fotakis EA, Kioulos I, Mpellou S, Konstantas S, Varela E, Gewehr S, Diamantopoulos V. Vontas J. Detection of West Nile Virus - Lineage 2 in Culex pipiens mosquitoes, associated with disease outbreak in Greece, 2017. Acta Trop. 2018 Jun; 182:64-68. doi: 10.1016/j.actatropica.2018.02.024. Epub 2018 Feb 21. PMID: 29474832.
- Fotakis EA, Chaskopoulou A, Grigoraki L, Tsiamantas A, Kounadi S, Georgiou L, Vontas J. Analysis of population structure and insecticide resistance in mosquitoes of the genus Culex, Anopheles and Aedes from different environments of Greece with a history of mosquito borne disease transmission. Acta Trop. 2017 Oct;174:29-37. doi: 10.1016/j.actatropica.2017.06.005. Epub 2017 Jun 9.
- Killeen GF, Masalu JP, Chinula D, Fotakis EA, Kavishe DR, Malone D, Okumu F. Control of Malaria Vector Mosquitoes by Insecticide-Treated Combinations of Window Screens and Eave Baffles. Emerg Infect Dis. 2017 May;23(5):782-789. doi: 10.3201/eid2305.160662. PMID: 28418299; PMCID: PMC5403053.

Conferences/Presentations (selected entries)

- 18th Panhellenic Entomological Congress, 15-18 October 2019, Komotini, Greece
- First Annual Conference on Aedes Invasive Mosquito COST ACTION CA17108, 13-14 February, 2019, Athens, Greece
- European Society for Vector Ecology Conference, 22-26 October, 2018, Palermo, Italy 7th MIM Pan African Malaria Conference, 15-20 April 2018, Dakar, Senegal
- 7th International Congress of the Society for Vector Ecology (SOVE), 1-6 October 2017, Mallorca, Spain
- 17th Entomological Conference, 18-22 September 2017, Athens, Greece
- VIII EMCA Conference in Montenegro, 12-16 March, 2016, Montenegro 16th Panhellenic Entomological Congress, October 20-23, 2015, Heraklion, Crete
- 19th European Society for Vector Ecology Conference, 13-17 October 2014, Thessaloniki, Greece

Fellowships honours and awards

- Fellowship: 1st Proclamation of Scholarships from ELIDEK for PhD Candidates (scholarship code 532), Department of Crop Science/ School of Plant Sciences/ Agricultural University of Athens, Greece (2017 -2020)
- Fellowship from the Department of Biology, University of Crete (entry rank for the MSc: 1st) (2013-2014)

Member of the Aedes Invasive Mosquito-COST Action (as of 2019) Europea Member of the European Society for Vector Ecology (as of 2018)

- Member of the Mosquito Control Association (as of 2017)
- Reviewer for 2 international scientific journals







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