Dimitrios – Georgios Kontopoulos

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Education

- **Imperial College London**, Silwood Park Campus, Ascot, United Kingdom — **Oct. 2015 – Dec. 2019**
  PhD: "Limits to thermal adaptation in ectotherms"
- **Imperial College London**, Silwood Park Campus, Ascot, United Kingdom — **Sep. 2013 – Sep. 2014**
  MRes Biodiversity Informatics and Genomics, graduated with Distinction.
  Thesis: "Phylogenetic constraints and environmental drivers of thermal adaptation among the phytoplankton"
- **Democritus University of Thrace**, Alexandroupolis, Greece — **Sep. 2008 – Oct. 2012**
  BSc Molecular Biology and Genetics, graduated with 7.46/10 ("Very Well").
  Thesis: "Pinda: a gene duplication detection program"

Publications

Peer-reviewed

9 **Kontopoulos, D.-G.**, van Sebille, E., Lange, M., Yvon-Durocher, G., Barraclough, T.G., & Pawar, S. (2020) Phytoplankton thermal responses adapt in the absence of hard thermodynamic constraints. *Evolution*. 74(4):775-790. Available from: doi:10.1111/evo.13946.

8 García-Carreras, B., Sal, S., Padfield, D., **Kontopoulos, D.-G.**, Bestion, E., Schaum, C.-E., Yvon-Durocher, G., & Pawar, S. (2018) Role of carbon allocation efficiency in the temperature dependence of autotroph growth rates. *Proceedings of the National Academy of Sciences*. 115(31):E7361-E7368. Available from: doi:10.1073/pnas.1800222115.

7 Kumbhar, R., Vidal-Eychenié, S., **Kontopoulos, D.-G.**, Larroque, M., Larroque, C., Basbous, J., Kossida, S., Ribeyre, C., & Constantinou, A. (2018) Recruitment of ubiquitin-activating enzyme UBA1 to DNA by poly(ADP-ribose) promotes ATR signalling. *Life Science Alliance*. 1(3):e201800096. Available from: doi:10.26508/lsa.201800096.

6 **Kontopoulos, D.-G.**, García-Carreras, B., Sal, S., Smith, T.P., & Pawar, S. (2018) Use and misuse of temperature normalisation in meta-analyses of thermal responses of biological traits. *PeerJ*. 6:e4363. Available from: doi:10.7717/peerj.4363.

5 **Kontopoulos, D.-G.**, Kontopoulou, T., Ho, H.-C., & García-Carreras, B. (2017) Towards a theoretically informed policy against a rakghoul plague outbreak. *The Medical Journal of Australia*. 207(11):490-494. Available from: doi:10.5694/mja17.00792.

4 **Kontopoulos, D.-G.**, Vlachakis, D., Tsiliki, G., & Kossida, S. (2016) Structuprint: a scalable and extensible tool for two-dimensional representation of protein surfaces. *BMC Structural Biology*. 16(4). Available from: doi:10.1186/s12900-016-0055-7.

3 Kontopoulou, T.†, **Kontopoulos, D.-G.**†, Vaidakis, E., & Mousoulis, G.P. (2015; † equal contribution) Adult Kawasaki disease in a European patient: a case report and review of the literature. *Journal of Medical Case Reports*. 9(1):75. Available from: doi:10.1186/s13256-015-0516-9.

2 Vlachakis, D., **Kontopoulos, D.-G.**, & Kossida, S. (2013) Space Constrained Homology Modelling: The Paradigm of the RNA-Dependent RNA Polymerase of Dengue (Type II) Virus. *Computational and Mathematical Methods in Medicine*. 2013:108910. Available from: doi:10.1155/2013/108910.

1 **Kontopoulos, D.-G.** & Glykos, N.M. (2013) Pinda: a web service for detection and analysis of intraspecies gene duplication events. *Computer Methods and Programs in Biomedicine*. 111(3):711-714. Available from: doi:10.1016/j.cmpb.2013.05.021.

Under review

1 **Kontopoulos, D.-G.**, Smith, T.P., Barraclough, T.G., & Pawar, S. Adaptive evolution shapes the present-day distribution of the thermal sensitivity of population growth rate. Available from: doi:10.1101/712885.

In preparation

1 **Kontopoulos, D.-G.**, Patmanidis, I., Barraclough, T.G., & Pawar, S. Higher temperatures worsen the effects of mutations on protein stability.

Scholarships and awards

4 Third place in the 2017 Christmas Competition of the **Medical Journal of Australia** for the paper "Towards a theoretically informed policy against a rakghoul plague outbreak". **Dec. 2017**

3 Travel award from the **Department of Life Sciences, Imperial College London** for attending the 2017 Congress of the European Society for Evolutionary Biology in Groningen, the Netherlands. **May 2017**

2 Science and Solutions for a Changing Planet Doctoral Training Partnership scholarship from the **Natural Environment Research Council**. **Oct. 2015 – Apr. 2019**

1 Scholarship for 2013-2014 postgraduate education abroad (1st cycle) from the **Greek State Scholarships Foundation (IKY)**. **Dec. 2013**

Research skills

Thermal biology

Fitting various thermal performance curve models to biological trait vs temperature datasets, handling datasets of environmental variables, some experience in mathematical modelling.

Comparative evolutionary analysis

Phylogeny reconstruction and chronogram estimation, phylogenetic comparative methods, fitting multivariate phylogenetic mixed-effects models.

Bioinformatics

Analysis of sequence conservation, Gene Ontology term enrichment, homology modelling, protein structure comparisons, machine learning, some experience in performing and analysing molecular dynamics simulations, some experience in genome assembly and annotation, basic experience in identifying coevolving protein families, basic experience in gene set enrichment analysis.

Programming

Perl 5 (extensive experience), R (extensive experience), LaTeX (very good experience), Python 2/3 (good experience), SQL (good experience), Common Lisp (basic experience), C (basic experience), and Shell (basic experience). Experienced in version control using Git.

Operating Systems

Comfortable with any major Operating System, including GNU/Linux distributions (e.g., Debian, Gentoo), and macOS.

Conference presentations

Oral presentations ([†] stands for presenting author)

7 **Kontopoulos, D.-G.**[†], van Sebille, E., Lange, M., Yvon-Durocher, G., Barraclough, T.G., & Pawar, S. (2018) Non-random adaptive evolution of the thermal sensitivity of growth rate among phytoplankton. *Gordon Research Seminar on Unifying Ecology Across Scales, Biddeford, ME, United States of America, 21-22 July.*

6 **Kontopoulos, D.-G.**[†], van Sebille, E., Lange, M., Yvon-Durocher, G., & Pawar, S. (2018) Trait correlations vs environmental drivers in the evolution of phytoplankton thermal responses. *65th Annual Meeting of the Ecological Society of Japan, Sapporo, Japan, 14-18 March.*

5 **Kontopoulos, D.-G.**[†], Yvon-Durocher G., & Pawar, S. (2017) Niche convergence in the macroevolution of the thermal sensitivity of phytoplankton growth rate. *2017 Congress of the European Society for Evolutionary Biology, Groningen, the Netherlands, 20-25 August.*

4 **Kontopoulos, D.-G.**[†], Yvon-Durocher, G., & Pawar, S. (2016) Deep-time macroevolution of thermal sensitivity of growth rate among phytoplankton. *Annual Meeting of the British Ecological Society, Liverpool, United Kingdom, 11-14 December.*

3 **Kontopoulos, D.-G.**[†], Yvon-Durocher, G., Chen, B., Thomas, M. K. & Pawar S. (2014) Γενικά μοτίβα θερμικής προσαρμογής μεταξύ των ειδών του φυτοπλαγκτού [General patterns of thermal adaptation among phytoplankton]. *7th National Congress of the Hellenic Ecological Society, Mytilene, Greece, 9-12 October.*

2 Vlachakis, D., Tsiliki, G., Kondos, D., **Kontopoulos, D.-G.**, Feidakis, C., & Kossida, S.[†] (2013) Applied bioinformatics in the structural post-genomic era. *Farm Animal Proteomics 2013: 3rd meeting of COST Action FA1002, Košice, Slovakia, 25-25 April.*

1 **Kontopoulos, D.-G.**[†] & Glykos, N.M. (2012) Pinda: a Web Service for Detection and Analysis of Intraspecies Gene Duplications. *7th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Heraklion, Greece, 4-6 October.*

Poster presentations († stands for presenting author)

4 **Kontopoulos, D.-G.**†, Patmanidis, I., Barraclough, T.G., & Pawar, S. (2018) Nonsynonymous mutations are more detrimental at high temperatures; a prokaryote-wide study of adenylate kinases. *Gordon Research Conference on Unifying Ecology Across Scales, Biddeford, ME, United States of America, 22-27 July.*

3 **Kontopoulos, D.-G.**, Papageorgiou, L., & Vlachakis, D.† (2017) PenDrugOn: A fully automated platform for designing antibody drug conjugates. *12th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Athens, Greece, 11-13 October.*

2 **Kontopoulos, D.-G.**†, Yvon-Durocher, G., & Pawar, S. (2016) Deep-time macroevolution of thermal sensitivity of growth rate among phytoplankton. *Gordon Research Conference on Unifying Ecology Across Scales, Biddeford, ME, United States of America, 24-29 July.*

1 **Kontopoulos, D.-G.**†, Yvon-Durocher, G., Allen, A. P., Chen, B., Thomas, M. K., & Pawar, S. (2014) Phylogenetic constraints and environmental drivers of thermal adaptation among the phytoplankton. *Annual London Evolutionary Research Network Conference, London, United Kingdom, 5 November.*

Research internships and positions

- **Visiting researcher**, Imperial College London, Silwood Park Campus, Ascot, United Kingdom — **Dec. 2019 – Present**
- **Research assistant at Dr. Samraat Pawar's group**, Imperial College London, Silwood Park Campus, Ascot, United Kingdom. — **Oct. 2015 – Sep. 2016**, **Nov. 2014 – May 2015**
- **Postgraduate intern at Dr. Sofia Kossida's group**, Bioinformatics and Medical Informatics Lab of the Biomedical Research Foundation of the Academy of Athens, Athens, Greece. — **Nov. 2012 – Sep. 2013**
- **Summer intern at Prof. Marie-Paule Lefranc's group**, Laboratoire d'ImmunoGénétique Moléculaire of the Institut de Génétique Humaine, Montpellier, France. — **May – June 2013**
- **Summer intern at Prof. Zissis Mamuris' group**, Laboratory of Genetics, Comparative and Evolutionary Biology of the Department of Biochemistry and Biotechnology of the University of Thessaly, Larissa, Greece. — **July 2011**
- **Intern at Dr. George Skavdis' group**, Laboratory of Molecular Regulation of the Department of Molecular Biology and Genetics of the Democritus University of Thrace, Alexandroupolis, Greece. — **Mar. – May 2010**

Teaching experience

As a course demonstrator

- **Further Topics in Statistics** — **2015-18**
  MSc/MRes "Ecology, Evolution and Conservation", Imperial College London
- **Intro to UNIX and Linux** — **2017**
  MSc/MRes "Computational Methods in Ecology and Evolution" and "Quantitative and Modelling Skills in Ecology and Evolution" Centre for Doctoral Training, Imperial College London
- **Statistics** — **2014-15**
  BSc "Biological Sciences", year 1, Imperial College London
- **Biological Computing in Python II** — **2014**
  MSc/MRes "Computational Methods in Ecology and Evolution", Imperial College London
- **Computational Biostatistics** — **2014**
  BSc "Biological Sciences", year 2, Imperial College London

As a course tutor

- **MSc/MRes "Computational Methods in Ecology and Evolution"**, Imperial College London — **2014-15**

As a workshop presenter

- **"How to generate topological constraints using the Open Tree of Life"** — **30 March 2017**
  Silwood Computer Skillz Workshop, Imperial College London

Service

Manuscript reviewer for *Functional Ecology*, *Scientific Reports*, and *Systematic Biology*.

Language skills

- Proficient knowledge in **English** (IELTS Academic band score of 8 (10th March 2012), Cambridge Proficiency, Michigan Proficiency, Pearson Test of English General Level 5).
- Proficient knowledge in **French** (Diplôme de Langue et Littérature Françaises 2ème degré Paris-Sorbonne C2, Certificat d'État hellénique de Connaissance des Langues niveau C1).
- Basic knowledge in **German** (Zertifikat Deutsch).

Additional information

Nationality: Greek
Societies Membership: Society for the Study of Evolution, Hellenic Society for Computational Biology and Bioinformatics, Panhellenic Society of Bioscientists, Hellenic Ecological Society.

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