Pantelis G Bagos
Laboratory of Molecular and Computational Biology and Genetics
Department of Computer Science and Biomedical Informatics
University of Thessaly
Email: pbagos@compgen.org
Homepage: http://www.compgen.org/people/pbagos

Current Appointment

- 2018-: Professor at the Department of Computer Science and Biomedical Informatics, University of Thessaly
- 2018-: Dean of the School of Sciences, University of Thessaly
- 2016-: Director of the Laboratory of Molecular and Computational Biology and Genetics

Past Appointments

- 2014-2018: Associate Professor at the Department of Computer Science and Biomedical Informatics, University of Thessaly
- 2016-2018: Deputy Chair of the Department and Director of the Laboratory of Molecular and Computational Biology and Genetics.
- 2010-2011, 2012-2018: Adjunct Lecturer (instructor) at the Hellenic Open University, co-ordinator of the Genetics Module
- 2017: Visiting Professor ("University of Diaspora") at the University of Cyprus Medical School
- 2014: Visiting Scientist, SciLifeLab, Stockholms University (2014)
- 2008-2014: Assistant Professor at the Department of Computer Science and Biomedical Informatics, University of Thessaly (tenured)
- 2006-2008: Adjunct Assistant Professor at the Department of Computer Science and Biomedical Informatics, University of Central Greece (now University of Thessaly).
- 2006-2007: Adjunct Lecturer at the Department of Computer Science and Technology, University of Peloponnese.
- 2005-2008: Post-doctoral Research Fellow at the Department of Cell Biology and Biophysics, Faculty of Biology, University of Athens.

Education:

- 2001-2005: Ph.D in Bioinformatics, Department of Cell Biology and Biophysics, Faculty of Biology, University of Athens, Greece
- 2001-2002: Postgraduate Certificate of Education (PGCE) in Adults Learning, Hellenic Open University, Greece
- 1999-2001 : M.Sc in Biostatistics, Department of Mathematics and Medical School of Athens, University of Athens, Greece
- 1992-1997: B.Sc. in Biology, Faculty of Biology, University of Athens, Greece

Journal Publications:

111 publications in peer-reviewed journals (http://www.compgen.org/publications/) of which:

- 6 publications as single author
- 19 publications as first author
- 36 publications as last/corresponding author

Journals Include:

- Bioinformatics and Computational Biology Journals such as: Nucleic Acids Research (webserver/database issues), Bioinformatics, BMC Bioinformatics, Journal of Bioinformatics and Computational Biology, Journal of Proteome Research, Protein Engineering Design and Selection, Genomics, BioData Mining, Proteins: Structure, Function and Bioinformatics, Database, Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics, Genomics Proteomics and Bioinformatics

- Biostatistics, Epidemiology and Statistical Genetics Journals such as: Genetic Epidemiology, Statistics in Medicine, The International Journal of Biostatistics, Statistical Methods in Genetics and Molecular Biology, Research Synthesis Methods, Statistical Methods and Applications, Journal of Clinical Epidemiology, European Journal of Epidemiology, BMC Genetics, Pharmacogenetics and Genomics, Annals of Human Genetics, Journal of Genetics
- Medical and Biological Journals such as: Nature Communications, Circulation, Journal of Hypertension, Multiple Sclerosis, Journal of Clinical Periodontology, European Journal of Neurology, International Journal of Cardiology, Molecular Genetics and Metabolism, Kidney International, Psychiatric Genetics, Molecular Human Reproduction, Clinical Chemistry and Laboratory Medicine, AIDS Res Hum Retroviruses, and so on

Conference Proceedings, Books and Book Chapters:

- 12 publications in peer-reviewed conference proceedings and collective volumes
- 1 book (textbook)
- 25 presentations in international conferences
- >140 presentations in national conferences

Total ISI Impact Factor:
361,514 (3.286/paper)

Citations **(**http://www.compgen.org/people/pbagos/citations**):**
Google Scholar citations= 4485, h-index=36, m-index=2.25
(https://scholar.google.gr/citations?user=k3osijsAAAAJ&hl=en)
Scopus citations= 3026, h-index=31, m-index=1.937
(https://www.scopus.com/authid/detail.uri?authorId=6602592715)

Teaching experience at the under-graduate level *(semester courses):*

- Biology I, Biology II, Bioinformatics I, Bioinformatics II, Special Topics on Bioinformatics and Bioethics at the Department of Computer Science and Biomedical Informatics, University of Central Greece (now, University of Thessaly)
- Bioinformatics, at the Department of Computer Science and Technology, University of Peloponnese.
- Genetics (module including the semester courses Genetics, Physiology and Evolution), at the Hellenic Open University (BSc Programme in «Physical Sciences»)

Teaching experience at the post-graduate level *(semester courses):*

- Principles and methods of Bioinformatics, Statistics in Bioinformatics, Computational Sequence Analysis, Methodology of Research, Programming in Perl, at the University of Athens (MSc Programme in «Bioinformatics»)
- Research Methodology, Special Topics in Bioinformatics, at University of Thessaly (MSc Programme in «Computational Medicine and Biology»)
- Advanced Biology, at the Hellenic Open University (MSc Programme in «Specialization in Science for High-School Teachers»)

Research Interests:

- **Bioinformatics**

  -Prediction of structure and function of membrane proteins

  -Prediction of protein sorting signals

  -Development of algorithms for Hidden Markov Models

  -Biological Databases

  -Complex Biological Networks

- **Biostatistics**

  -Methodology of meta-analysis

-Genetic Epidemiology
-Multifactorial diseases
-Gene expression
-Biostatistics software

Supervision:

P. Kontou (Post-Doctoral Fellow, 2017-), E. Vlahou (Post-Doctoral Fellow, 2019-), G. Braliou, K. Pantavou, A. Pavlopoulou (Post-Doctoral Fellows, 2013-2015), G. Pavlopoulos (Post-Doctoral Fellow, 2010-2011), S. Bonovas (Post-Doctoral Fellow, 2011-2012), N. Dimou (PhD student, graduated 2016), P. Kontou (PhD student, graduated 2016), G. Tsaousis (PhD student co-supervision 2014, MSc 2010), M. Theodoropolou (PhD student co-supervision 2014, MSc 2010), G. Kapoula (MSc, 2016, PhD 2016-2019), K. Vennou (MSc, 2016, PhD 2016-), I. Tamposis (MSc, 2016, PhD 2017-), V. Karakike (PhD, 2018-), I. Petasakis (PhD, 2017-), A. Rumia (PhD, 2016-), T. Tafarli (MSc, 2019), C. Kermelioti (MSc, 2018), E. Malliarou (MSc, 2019), P. Malamousis (MSc, 201,9), N. Kakouras (MSc, 2019), S. Gagalioti (MSc, 2018), A. Pavletsi (MSc, 2018), A. Kokkinou (MSc, 2017), K. Papadimitriou (MSc, 2017), M. Syntichaki (MSc, 2015), M. Karagrigoriou (MSc, 2015), T. Charitou (MSc, 2012) V. Manioti (MSc 2011), H. Assimakis (MSc 2010), G. Plevrias (MSc, 2012), E. Dimopoulou (MSc, 2012), K. Merou (MSc, 2012), M. Hatzou (MSc 2010), A. Logaridi (MSC, 2010), S. Chatzi (MSc 2010), F. Mantzari (MSc 2010), K. Spyridopoulou (MSc 2010), S. Stoubos (MSc 2010), P. Anthopoulos (MSc 2009), A. Blika (MSc 2009), P. Kalovyrna (MSc 2009), O. Limitsiou (MSc 2009), S. Mavridis (MSc 2009), Ch. Mavropoulos (MSc 2009), N. Tsoukalas (MSc 2009).
Supervision of the Diploma Thesis of more than 30 undergraduate students (B.Sc).

Meeting and conference organization:
MIND Workshop (Mining Complex Entities from Network and Biomedical Data), Co-located with ECML/PKDD 2011, European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases; 8th IEEE International Conference on BioInformatics and BioEngineering (BIBE), Athens (2008); 29th Conference of HSBS, Kavala (2007); 90th Conference of HSBS, Lamia (2017); 3rd Conference of HSCBB, Thessaloniki (2008); 4th Conference of HSCBB, Athens (2009); 5th Conference of HSCBB, Alexandroupolis (2010);); 6th Conference of HSCBB, Patras (2011), 7th Conference of HSCBB, Heraklion (2012), 8th Conference of HSCBB, Lamia (2013, Chair), 9th Conference of HSCBB, Athens (2014), 10th Conference of HSCBB, Athens (2015), 11th Conference of HSCBB, Athens (2016), 12th Conference of HSCBB, Athens (2017), Co-chair of the ECCB2018 (European Conference of Computational Biology).

Editorial Board member:
BMC Research Notes, Plos ONE, The Open Bioinformatics Journal, Journal of integrated OMICS

Reviewer:
Reviewer for more than 40 international journals (BMC Bioinformatics, Nucleic Acids Research, Bioinformatics, FEBS Letters, Proteins: Structure, Function and Bioinformatics, BMC Cell Biology, Protein Science, BMC Research Notes, PLoS ONE, Molecular Simulation, Journal of Proteome Research, BBA - Proteins and Proteomics, Chest, Journal of Hypertension, American Journal of Hypertension, Hypertension Research, European Journal of Neurology, European Journal of Endocrinology, International Journal of Immunogenetics, Journal of Applied Oral Science, Journal of Clinical Laboratory Analysis, Physiological Genomics, Pharmacogenetics and Genomics, The Breast, The Open Bioinformatics Journal Human Molecular Genetics, Journal of Medical Genetics, Disease Markers, Journal of Medical Microbiology, Bioorganic & Medicinal Chemistry, Yonsei Medical Journal, Archives of Oral Biology, Amino acids, Computers in Biology and Medicine, Journal of Clinical Epidemiology, International Journal of Biostatistics, Statistical Applications in Genetics and Molecular Biology, Statistics in Medicine, American Journal of Epidemiology, Genetic

Epidemiology, BMC Medical Research Methodology, BMC Medical Genetics, Research Synthesis Methods)

Professional activities:
Founding member and member of the board of directors (2009-to date) of the Hellenic Society for Computational Biology and Bioinformatics (http://www.hscbb.gr/). Member of ASA, AMS, ISCB, HSBS. Member of the Steering Committee of BMBS COST Action BM1405: Non-globular proteins - from sequence to structure, function and application in molecular physiopathology (NGP-NET), Member of the Steering Committee of the ELIXIRgr node in which I am training coordinator (TC) and member of the international specialized protein resources network (SPRN).

Invited Lectures:

1. **Big data and meta-analysis in Public Health**, presented at the Department of Public Health, University of Thessaly, 2019 (in Greek
2. **Meta-analysis of genetic association and genomewide association studies**, presented at the Medical School of the University of Patras, 2018 (in Greek)
3. **Meta-analysis of Genomic Data,** presented at the University of Cyprus Medical School, Nicosia, 2017 (in Greek)
4. **Genetic Epidemiology,** presented at the University of Cyprus Medical School, Nicosia, 2017 (in Greek)
5. **Meta-analysis methods for genomic data**, presented at the "4th Forum of Biosciences and Cancer", Athens, 2017 (in Greek)
6. **Protein Databases and Sequence Analysis Tools at the Univesity of Thessaly**, presented at the "Infrastructures for Life Science's Big Data and the role of ELIXIR" meeting, Athens (in English), 2016
7. **Bioinformatics Education in Greece,** presented at the *Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB)*, 2015
8. **Integration of data from multiple sources: meta-analysis and synthesis analysis**, presented at the *Athens University of Economics and Business*, 2015
9. **Specialized Protein Databases in Greece**, presented at the *Protein Bioinformatics and Community Resources retreat*, *Wellcome Trust Conference Centre*, 2014
10. **Hidden Markov Models for the prediction of bacterial signal peptides and other sorting signals**, presented at the *SciLifeLab, Stockholms University*, 2014
11. **Markov models and Hidden Markov Models in Bioinformatics**, presented at the *Department of Biochemistry and Biotechnology, University of Thessaly*, 2013
12. **Multivariate meta-analysis,** presented at *New York University School of Medicine*, 2012
13. **Meta-analysis of correlated data,** presented at the *Department of Mathematics, University of Athens,* 2011
14. **Bioinformatics and Computational Biology in Greece: a bibliometric study**, presented at the *Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB)*, 2010
15. **Computational and Statistical Genetics**, presented at the *32nd Conference of the Hellenic Society of Biological Sciences (HSBS)*, 2010
16. **Computational Biology and Bioinformatics at the University of Central Greece**, presented at the *Athens ELIXIR meeting*, 2009
17. **Computational analysis of G-protein coupled receptors**, presented at the *4th Hellenic Crystallographic Association (HeCrA) Conference*, 2008
18. **Hidden Markov Models and applications in Bioinformatics: Prediction of transmembrane topology and signal peptides,** presented at the *Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB)*, 2008
19. **Prediction of β-barrel outer membrane proteins: application to complete genomes**, presented at the *Hellenic Bioinformatics Forum (HBF)*, 2007
20. **Genetic polymorphisms and diseases: meta-analysis of genetic association studies**, presented at the *29th Conference of the Hellenic Society of Biological Sciences (HSBS)*, 2007

21. **Hidden Markov Models and applications in biology**, presented at the *Athens University of Economics and Business*, 2006
22. **Algorithms for structure prediction of bacterial β-barrel outer membrane proteins**, presented at the *International Greek Biotechnology Forum (IGBF)*, 2005

Journal Publications:

1. Georgia G Braliou, Panagiota I Kontou, Haralabia Boleti, Pantelis G Bagos. **Susceptibility to leishmaniasis is affected by host SLC11A1 gene polymorphisms: a systematic review and meta-analysis**. *Parasitology Research*, 2019
2. Vennou KE, Piovani D, Kontou PI, Bonovas S, Bagos PG. **Multiple outcome meta-analysis of gene-expression data in inflammatory bowel disease**. *Genomics*. 2019. pii: S0888-7543(19)30600-7. doi: 10.1016/j.ygeno.2019.09.019
3. Tamposis IA, Tsirigos KD, Theodoropoulou MC, Kontou PI, Tsaousis GN, Sarantopoulou D, Litou ZI and Bagos PG. **JUCHMME: A Java Utility for Class Hidden Markov Models and Extensions for biological sequence analysis**. *Bioinformatics*, 2019
4. Forero DA, Lopez-Leon S, González-Giraldo Y, Bagos PG. **Ten simple rules for carrying out and writing meta-analyses**.*PLoS Comput Biol*. 2019 May 16;15(5):e1006922. doi: 10.1371/journal.pcbi.1006922. eCollection 2019
5. Georgia V. Kapoula, Panagiota I Kontou, **Pantelis G Bagos**. **Diagnostic Accuracy of Neutrophil GelatinaseAssociated Lipocalin for Predicting Early Diabetic Nephropathy in Patients with Type 1 and Type 2 Diabetes Mellitus: A Systematic Review and Meta-analysis**. *The Journal of Applied Laboratory Medicine*, 2019
6. Pantavou KG, Bagos PG. **Season of birth and multiple sclerosis: a systematic review and multivariate meta-analysis**. J Neurol. 2019 May 4. doi: 10.1007/s00415-019-09346-5.
7. Panagiota I Kontou, Athanasia Pavlopoulou, Georgia G Braliou, Spyridoula Bogiatzi, Niki L Dimou, Sripal Bangalore, Pantelis G Bagos. **Identification of Gene Expression Profiles in Myocardial Infarction: a Systematic Review and Meta-analysis**. *BMC Medical Genomics*, 2018
8. Tamposis IA, Tsirigos KD, Theodoropoulou MC, Kontou PI and Bagos PG. **Semi-supervised learning of Hidden Markov Models for biological sequence analysis**. *Bioinformatics*, 2018, in press
9. Tamposis IA, Theodoropoulou MC, Tsirigos KD, Bagos PG. **Extending Hidden Markov Models to allow conditioning on previous observations.** *Journal of Bioinformatics and Computational Biology*. 2018
10. Chrissa G Tsiara, Georgios K Nikolopoulos, Niki L Dimou, Katerina G Pantavou, Pantelis G Bagos, Benedicta Mensah, Michael Talias, Georgia G Braliou, Dimitra Paraskeva, Stefanos Bonovas, Angelos Hatzakis. **Interleukin gene polymorphisms and susceptibility to HIV-1 infection: a meta-analysis**. *Journal of Genetics*, 2018
11. Pavlopoulos GA, Kontou PI, Pavlopoulou A, Bouyioukos C, Markou E, Bagos PG. **Bipartite Graphs in Systems Biology and Medicine: a survey of methods and applications**. *GigaScience*, 2018
12. Hatzigeorgiou AG, Bagos P, Benos PV, Nikolaou C, Moreau Y, Kavakiotis I (ECCB 2018 Steering Committee). **ECCB 2018: The 17th European Conference on Computational Biology**. *Bioinformatics*. 2018 Sep 1;34(17):i595-8
13. Medina-Gomez C, Kemp JP, Dimou NL, Kreiner E, Chesi A, Zemel BS, Bønnelykke K, Boer CG, Ahluwalia TS, Bisgaard H, Evangelou E, Heppe DHM, Bonewald LF, Gorski JP, Ghanbari M, Demissie S, Duque G, Maurano MT, Kiel DP, Hsu YH, C J van der Eerden B, Ackert-Bicknell C, Reppe S, Gautvik KM, Raastad T, Karasik D, van de Peppel J, Jaddoe VWV, Uitterlinden AG, Tobias JH, Grant SFA, Bagos PG, Evans DM, Rivadeneira F. **Bivariate genome-wide association meta-analysis of pediatric musculoskeletal traits reveals pleiotropic effects at the SREBF1/TOM1L2 locus**. *Nature Communications* **8**, Article number: 121 (2017)
14. Theodosiou T, Efstathiou G, Papanikolaou N, Kyrpides NC, Bagos PG, Iliopoulos I, Pavlopoulos GA. **NAP: The Network Analysis Profiler, a web tool for easier topological**

analysis and comparison of medium-scale biological networks. *BMC Research Notes*. 10:278 (2017)

15. Pavlopoulou A, Bagos PG, Koutsandrea V, Georgakilas AG. **Molecular determinants of radiosensitivity in normal and tumor tissue: a bioinformatic approach**. *Cancer Letters* 403 (2017) 37-47
16. Dimou NL, Pantavou KG, Bagos PG. **Apolipoprotein E polymorphism and left ventricular failure in beta-thalassemia: A multivariate meta-analysis.** *Annals of Human Genetics* 81(5):213-223 (2017)
17. Paraskevopoulou-Kollia EA, Bagos PG. **Bioinformatics Education in Greece: a Survey**. *Biosaintifika: Journal of Biology & Biology Education*. 2017 9(1):1-10
18. Kapoula G, Kontou PI, Bagos PG. **The impact of pneumatic tube system on routine laboratory parameters: a systematic review and meta-analysis** *Clinical Chemistry and Laboratory Medicine*, 2017 (in press)
19. Dimou NL, Tsirigos KD, Elofsson A and Bagos PG **GWAR: Tools for Robust Analysis and Meta-Analysis of Genome-Wide Association Studies**. *Bioinformatics*, 2017 33(10):1521-1527
20. Bersimis S, Sachlas A, Bagos PG. **Discriminating membrane proteins using the joint distribution of length sums of success and failure runs**. *Stat Methods Appl* (2016).
21. Tsirigos KD, Elofsson A, Bagos PG. **PRED-TMBB2: Improved topology prediction and detection of beta-barrel outer membrane proteins**. *Bioinformatics*, 2016, 32 (17), i665-i671
22. Kontou P, Pavlopoulou A, Dimou NL, Pavlopoulos G, Bagos PG. **Data and programs in support of network analysis of genes and their association with diseases**. *Data in Brief*. Volume 8, 2016, Pages 1036–1039
23. Kontou P, Pavlopoulou A, Dimou NL, Pavlopoulos G, Bagos PG. **Network analysis of genes and their association with diseases**. *Gene*, 2016, Volume 590, Issue 1, 15 2016, Pages 68–78
24. Pavlopoulou A, Savva I, Louka M, Bagos PG, Vorgias CE, Michalopoulos I, Georgakilas AG. **Unraveling the mechanisms of extreme radioresistance in prokaryotes: Lessons from nature**. *Mutation Reviews* 2016 767, 92-107
25. Pantavou K, Braliou GG, Kontou PI, Dimou NL, Bagos PG. **A meta-analysis of FZD3 polymorphisms and their association with schizophrenia.** *Psychiatric genetics*, 26 (2016) 272-280
26. NL Dimou, M Adam, PG Bagos. **A multivariate method for meta-analysis and comparison of diagnostic tests.** *Statistics in Medicine*. 2016. Volume 35, Issue 20, Pages 3509–3523
27. Polymeropoulos E, Bagos P ,Toumpoulis I, Papadimitriou M, Rizos I, Patsouris E. **Vitamin C for the prevention of postoperative atrial fibrillation after cardiac surgery: a meta-analysis**. *Advanced Pharmaceutical Bulletin*. 2016 6 (2), 243
28. Vassiliki Tsata, Aristea Velegraki, Anastasios Ioannidis, Cornelia Poulopoulou, Pantelis Bagos, Maria Magana, Stylianos Chatzipanagiotou. **Effects of Yeast and Bacterial Commensals and Pathogens of the Female Genital Tract on the Transepithelial Electrical Resistance of HeLa Cells**. *The Open Microbiology Journal*, 2016, 10: 90-96
29. Bagos PG. **Meta-analysis in Stata using gllamm**. *Research Synthesis Methods* 2015 6 (4), 310-332
30. Bagos PG, Adam M. **On the Covariance of Regression Coefficients**. *Open Journal of Statistics*. 2015 5 (07), 680
31. Georgakilas AG, Pavlopoulou A, Louka M, Nikitaki Z, Vorgias CE, Bagos PG, Michalopoulos I. **Emerging molecular networks common in ionizing radiation, immune and inflammatory responses by employing bioinformatics approaches**. *Cancer Lett.* 2015 368(2):164-72
32. Holliday GL, Bairoch A, Bagos PG, Chatonnet A, Craik DJ, Flinn RD, Henrissat B, Landsman D, Manning G, Nagano N, O'Donovan C, Pruitt KD, Rawlings ND, Saier M, Sowdhamini R, Spedding M, Srinivasan N, Vriend G, Babbitt PC, Bateman A. **Key challenges for the creation and maintenance of specialist protein resources**. *Proteins*. 2015;83(6):1005-13

33. Babbitt PC, Bagos PG,, Bairoch A, Bateman A, Chatonnet A, Chen MJ, Craik DJ, Flinn RD, Gloriam D, Haft DH, Henrissat B, Holliday GL, Isberg V, Landsman D, Lenfant N, Manning G, Nagano N, Srinivasan N, O'Donovan C, Pruitt KD, Sowdhamini R, Rawlings ND, Saier M, Sharman JL,Spedding M, ,Tsirigos KD, Vastermark A, Vriend G. **Creating a Specialist Protein Resource Network: A meeting report for the Protein Bioinformatics and Community Resources Retreat**. *Database*, 2015, bav063
34. Braliou GG, Pantavou KG, Kontou PI, Bagos PG. **Polymorphisms of the CD24 Gene Are Associated with Risk of Multiple Sclerosis: A Meta-Analysis**. *International Journal of Molecular Sciences*. 2015, 16(6): 12368-12381
35. Braliou GG, Grigoriadou AM, Kontou PI, Bagos PG. **The role of genetic polymorphisms of the Renin-Angiotensin System in renal diseases: A meta-analysis**. *Comput Struct Biotechnol J*. 2014 Jun 11;10(16):1-7
36. Nikolopoulos G, Bagos P, Tsangaris I, Tsiara C, Kopterides P, Vaiopoulos A, Kapsimali V, Bonovas S, Tsantes A. **The association between Plasminogen Activator Inhibitor type 1 (PAI-1) levels, PAI-1 4G/5G polymorphism, and myocardial infarction: a Mendelian Randomization meta-analysis** *Clinical Chemistry and Laboratory Medicine*, 2014
37. Pereira TV, Kimura L, Suwazono Y, Nakagawa H, Daimon M, Oizumi T, Kayama T, Kato T, Li L, Chen S, Gu D, Renner W, März W, Yamada Y, Bagos PG, Mingroni-Netto RC. **Multivariate meta-analysis of the association of G-protein beta 3 gene (GNB3) haplotypes with cardiovascular phenotypes**. *Mol Biol Rep*. 2014
38. Tsaousis GN, Bagos PG, Hamodrakas SJ **HMMpTM: Improving transmembrane protein topology prediction using phosphorylation and glycosylation site prediction** *Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics* 2014 1844(2):316-22
39. Hamodrakas SJ, Iliopoulos I, Ouzounis CA, Bagos PG, Promponas VJ **Meeting report: The seventh conference of the Hellenic Society for Computational Biology and Bioinformatics** *Computational and Structural Biotechnology Journal* 6, 2013
40. Efthimiou O, Mavridis D, Cipriani A, Leucht S, Bagos P, Salanti G. **An approach for modelling multiple correlated outcomes in a network of interventions using odds ratios**. *Stat Med* 2014
41. Koletsi D, Fleming PSS, Sheera J, Bagos P, Pandis N. **Are sample sizes clear and justified in RCTs published in dental journals**? *PloS ONE*, 2013
42. Ioannidou V, Ioannidis A, Magiorkinis E, Bagos P, Nicolaou C, Legakis N, Chatzipanagiotou S **Multilocus sequence typing (and phylogenetic analysis) of Campylobacter jejuni and Campylobacter coli strains isolated from clinical cases in Greece** 2013 *BMC research notes* 6 (1), 359
43. Tsantes AE, Kopterides P, Bonovas S, Bagos P, Antonakos G, Nikolopoulos GK, Gialeraki A, Kapsimali V, Kyriakou E, Kokori S, Dima K, Armaganidis A, Tsangaris I. **Effect of angiotensin converting enzyme gene I/D polymorphism and its expression on clinical outcome in acute respiratory distress syndrome**. *Minerva Anestesiol*. 2013;79(8):861-70.
44. Bonovas S. Nikolopoulos GK, Bagos PG. **Bisphosphonate Use and Risk of Colorectal Cancer: A Systematic Review and Meta-analysis**. *British Journal of Clinical Pharmacology*, 2013 76(3):329-337
45. Bagos PG. **Genetic model selection in genome-wide association studies: robust methods and the use of meta-analysis.** *Statistical Applications in Genetic and Molecular Biology*, 2013 12(3):285-308
46. Tsiara C, Nikolopoulos GK, Dimou N, Bagos P, Saroglou G, Velonakis E, Hatzakis A. **Effect of Hepatitis C Virus on Immunologic and Virologic Response in HIV Infected Patients Initiating Highly Active Antiretroviral Therapy: a Meta-Analysis** *Journal of Viral Hepatitis* 2013, 20(10) 715-724
47. Bangalore S, Pursnani S, Kumar S, Bagos PG. **Percutaneous Coronary Intervention versus Optimal Medical Therapy for Prevention of Spontaneous Myocardial Infarction in Subjects with Stable Ischemic Heart Disease**. *Circulation*. 2013 127 (7), 769-781
48. Rabe GL, Wellmann J, Bagos P, Busch MA, Hense HW, Spies C, Weiss-Gerlach E, McCarthy W, Gareca Arizaga MJ, Neuner B. **Efficacy of Emergency Department-Initiated Tobacco**

Control--Systematic Review and Meta-analysis of Randomized Controlled Trials. *Nicotine Tob Res*. 2013 15 (3), 643-655
49. Bonovas S, Nikolopoulos GK, Bagos PG **Use of fibrates and cancer risk: a systematic review and meta-analysis of 17 long-term randomized placebo-controlled trials** 2012 *PloS ONE* 7 (9), e45259
50. Stoubos S, Anthopoulos PG, Hamodrakas SJ, Bagos PG. **The association between apolipoprotein E gene polymorphisms and essential hypertension: a meta-analysis of 45 studies including 13940 cases and 16364 controls**. *Journal of Human Hypertension*, 2012 27 (4), 245-255
51. Bagos PG. **On the covariance of two correlated log-Odds Ratios**. *Statistics in Medicine*. 2012 **31**(14):1418-31
52. Spyridopoulou K, Dimou NL, Hamodrakas SJ, Bagos PG. **Methylene Tetrahydrofolate Reductase gene polymorphisms and their association with methotrexate toxicity: A meta-analysis**. *Pharmacogenetics and Genomics*, 2012, 22 (2), 117-33
53. Tsiara CG, Nikolopoulos GK, Bagos PG, Goujard C, Katzenstein TL, Minga AK, Rouzioux C, Hatzakis A. **Impact of HIV Type 1 DNA Levels on Spontaneous Disease Progression: A Meta-Analysis**.*AIDS Res Hum Retroviruses*. 2012, 28(4): 366-373
54. Chatzigeorgiou KS, Sergentanis TN, Tsiodras S, Hamodrakas SJ, Bagos PG. **Phoenix 100 versus Vitek 2 in the identification of Gram positive and Gram negative bacteria: a comprehensive meta-analysis**. *J Clin Microbiol*. 2011 **49**(9):3284-91
55. Bagos PG, Dimou NL, Liakopoulos TD, Nikolopoulos GK. **Meta-analysis of Family-based and Case-control Genetic Association Studies That Use the Same Cases**, 2011 *Statistical Applications in Genetics and Molecular Biology*, **10**(1):Article 19
56. Bagos PG, Liakopoulos TD. **A multipoint method for meta-analysis of genetic association studies.** 2010, *Genetic Epidemiology*, 34(7):702-15
57. Nikolopoulos GK, Bagos PG, Lytras T, Bonovas S. **An Ecological Study of the Determinants of Differences in 2009 Pandemic Influenza Mortality Rates between Countries in Europe,** 2011, *PLoS One.* 2011;6(5):e19432
58. Bagos PG. **Meta-analysis of haplotype-association studies: Comparison of methods and an empirical evaluation of the literature,** *BMC Genetics* 2011, **12**:8
59. Nikolopoulos GK, Bagos PG, Bonovas S. **Developing the Evidence Base for Cancer Chemoprevention: Use of Meta-Analysis.** *Current Drug Targets*, 2011, 12(13):1989-97
60. Nikolopoulos GK, Masgala A, Tsiara C, Limitsiou OK, Karnaouri AC, Dimou NL, Bagos PG. **Cytokine gene polymorphisms in multiple sclerosis: a meta-analysis of 45 studies including 7,379 cases and 8,131 controls**. 2011 *European Journal of Neurology*, in 18(7):944-51
61. Pavlopoulos GA, Secrier M, Moschopoulos CN, Soldatos TG, Kossida S, Aerts J, Schneider R, Bagos PG. **Using graph theory to analyze biological networks.** 2011, *BioData Mining*, **4**:10
62. Tsirigos KD, Bagos PG, Hamodrakas SJ. **OMPdb: A database of beta-barrel outer membrane proteins from Gram-negative bacteria**, 2011, *Nucleic Acids Research* 39(Database issue):D324-31
63. Bagos PG, Nikolaou EP, Liakopoulos TD, Tsirigos KD. **Combined prediction of Tat and Sec signal peptides with Hidden Markov Models**, 2010, *Bioinformatics*, **26**: 2811-2817
64. Satagopam VP, Theodoropoulou MC, Stampolakis CK, Pavlopoulos GA, Papandreou NC, Bagos PG, Schneider R, Hamodrakas SJ. **GPCRs, G-proteins, Effectors and their interactions: Human-gpDB, a database employing advanced visualization tools and data integration techniques.** *Database*, 2010
65. Tsaousis GN, Tsirigos KD, Andrianou XD, Liakopoulos TD, Bagos PG, Hamodrakas SJ. **ExTopoDB: A database of experimentally derived topological models of transmembrane proteins.** 2010, *Bioinformatics*, 26(19):2490-2
66. Bagos PG. **A unification of multivariate methods for meta-analysis of genetic association studies.** *Statistical Applications in Genetics and Molecular Biology*, 2008, **7**(1), *Article 13*
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Books:

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Publications in Edited Volumes & Peer-reviewed conference proceedings:

1. Kontou PI, Pavlopoulou A, Bagos PG. **Methods of Analysis and Meta-Analysis for Identifying Differentially Expressed Genes**. *Methods Mol Biol*. 2018;1793:183-210. doi: 10.1007/978-1-4939-7868-7_12.
2. Dimou NL, Pantavou KG, Braliou GG, Bagos PG.**Multivariate Methods for Meta-Analysis of Genetic Association Studies.***Methods Mol Biol*. 2018;1793:157-182. doi: 10.1007/978-1-4939-7868-7_11.
3. Tsaousis GN, Theodoropoulou MC, Hamodrakas SJ, Bagos PG. **Predicting Alpha Helical Transmembrane Proteins Using HMMs**. *Methods Mol Biol*. 2017;1552:63-82
4. Tsaousis GN, Hamodrakas SJ, Bagos PG. **Predicting Beta Barrel Transmembrane Proteins Using HMMs**. *Methods Mol Biol*. 2017;1552:43-61
5. Pavlopoulos GA, Iacucci E, Iliopoulos I, Bagos P **Interpreting the Omics 'era' Data** *Multimedia Services in Intelligent Environments*, *Smart Innovation, Systems and Technologies* Volume 25, 2013, pp 79-100 79-100
6. Fimereli DK, Tsirigos KD, Litou ZI, Liakopoulos TD, Bagos PG, Hamodrakas SJ **CW-PRED: a HMM-Based method for the classification of cell wall-anchored proteins of gram-positive bacteria** *Artificial Intelligence: Theories and Applications*, *Lecture Notes in Computer Science*, 2012, Volume 7297/2012, 285-290, SETN2012
7. Bagos PG, Hamodrakas SJ. **Bacterial beta-barrel outer membrane proteins: A common structural theme implicated in a wide variety of functional roles**, 2009, In A Daskalaki (Ed) *Handbook of Research on Systems Biology Applications in Medicine*, ISBN10: 1605660760, pp: 182-207

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10. Bagos PG, Liakopoulos TD, Hamodrakas SJ. **Efficient Training of Hidden Markov Models for protein sequence analysis.** *Proceedings of ICCMSE 2004, Lecture Series on Computers and Computational Science, Vol 1*, pp. 53-56.
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12. Bagos PG, Liakopoulos TD, Hamodrakas SJ. **Maximum Likelihood and Conditional Maximum Likelihood learning algorithms for Hidden Markov Models with labeled data-Application to transmembrane protein topology prediction.** In *T.E. Simos (ed). Computational Methods in Sciences and Engineering, Proceedings of the International Conference 2003 (ICCMSE 2003), World Scientific Publishing Co. Pte. Ltd.* Singapore: pp. 47-55

Bioinformatics and Biostatistics software tools (http://www.compgen.org/tools):

1. **PRED-TMBB:** Prediction of transmembrane beta-strands of outer membrane proteins (http://bioinformatics.biol.uoa.gr/PRED-TMBB)
2. **PRED-TMBB2**: Improved topology prediction and detection of beta-barrel outer membrane proteins (http://www.compgen.org/tools/PRED-TMBB2)
3. **HMMpTM**: Combined prediction of membrane protein topology and post-translational modification (http://bioinformatics.biol.uoa.gr/HMMpTM/)
4. **HMM-TM:** Prediction of transmembrane alpha-helices with the incorporation of experimental information (http://bioinformatics.biol.uoa.gr/HMM-TM)
5. **MCMBB:** Discrimination of transmembrane beta-barrels from water soluble proteins (http://bioinformatics.biol.uoa.gr/mcmbb)
6. **ConBBPRED:** Consensus method for prediction of transmembrane beta-strands (http://bioinformatics.biol.uoa.gr/ConBBPRED)
7. **PRED-GPCR:** Classification of GPCRs into families (http://bioinformatics.biol.uoa.gr/PRED-GPCR)
8. **PRED-COUPLE:** Prediction of GPCRs coupling specificity to G-proteins (http://bioinformatics.biol.uoa.gr/PRED-COUPLE)
9. **PRED-COUPLE2:** Prediction of GPCRs coupling specificity to G-proteins, including promiscuous coupling and coupling to G12/13 (http://bioinformatics.biol.uoa.gr/PRED-COUPLE2)
10. **CWPRED:** Prediction of cell-wall anchored proteins of GRAM positive bacteria (http://bioinformatics.biol.uoa.gr/CWPRED)
11. **PredSL**: Prediction of subcellular localization of eukaryotic proteins (http://bioinfromatics.biol.uoa.gr/PredSL/)
12. **gpDB:** Database of GPCRs and their interaction with G-proteins (http://bioinformatics.biol.uoa.gr/gpDB)
13. **TMRpres2D:** Two-dimensional depiction of transmembrane protein models (http://bioinformatics.biol.uoa.gr/TMRPres2D)
14. **NON-RED:** Creation of non-redundant sequence datasets using the algorithm #2 of Hobohm et al, (http://bioinformatics.biol.uoa.gr/NON-RED/)
15. **PRED-LIPO:** Prediction of lipoprotein signal peptides in Gram-positie Bacteria (http://bioinformatics.biol.uoa.gr/PRED-LIPO/)
16. **PRED-SIGNAL:** Prediction of signal peptides in Archaea (http://bioinformatics.biol.uoa.gr/PRED-SIGNAL/)
17. **PRED-TAT:** Prediction of Twin Arginine signal peptides in Bacteria (http://www.compgen.org/tools/PRED-TAT/)

18. **metagen:** STATA program for meta-analysis of genetic association studies (http://www.compgen.org/tools/metagen)
19. **metatrend**: STATA program for estimating trends in cumulative meta-analysis (http://www.compgen.org/tools/metatrend)
20. **STATA programs for multivariate meta-analysis of genetic association studies** including models for continuous and discrete outcomes, prospective and retrospective likelihood, and the genetic model-free approach (http://www.compgen.org/tools/multivariate-genetic)
21. **Poisson meta-analysis**: Mixed-Effects Poisson Regression Models for Meta-Analysis of Follow-Up Studies with Constant or Varying Durations (http://www.compgen.org/tools/poisson-meta-analysis)
22. **Haplotype meta-analysis**: STATA programs for meta-analysis of haplotype association studies (http://www.compgen.org/tools/haplotype)
23. **meta-tdt**: Meta-analysis of Family-based and Case-control Genetic Association Studies That Use the Same Cases (http://www.compgen.org/tools/meta-tdt)
24. **gllamm**: meta-analysis in STATA using gllamm (http://www.compgen.org/tools/gllamm)
25. **regression**: the covariance of regression coefficients calculated from summary data (http://www.compgen.org/tools/regression)
26. **multiple**: A Multivariate Method for Meta-Analysis of Multiple Outcomes in Genetic Association Studies (http://www.compgen.org/tools/multiple-outcomes)
27. **GWAR**: robust methods for analysis and meta-analysis of GAS and GWAS (http://www.compgen.org/tools/GWAR)

Research Grants and Funding (as scientific coordinator)

- 1/2017-12/2019, Delegate of the University of Thessaly in the board of directors of the national infrastructure **ELIXIR-GR** (Total budget for the Laboratory of Molecular and Computational Biology and Genetics €180.000)
- 12/2019-1/2021, *State Scholarship Foundation* fellowship for post-doctoral studies (P. Kontou): **«Analysis of Complex Biological Networks: Networks of SNPs-expression-disease»** (€26.400)
- 12/2019-1/2021, *State Scholarship Foundation* fellowship for post-doctoral studies (E. Vlahou): **«Learning and Generalization in Demanding Acoustic and Phonetic Environments»** (€26.400)
- 1/2017-12/2019, *State Scholarship Foundation* fellowship for post-doctoral studies (K. Pantavou): **«Meta-analysis of environmental end genetic epidemiology studies»** (€26.141)
- 12/2016-8/2017, *State Scholarship Foundation* fellowship for post-doctoral studies (P. Kontou): **«Methodology for meta-analysis of microarray studies»** (€19.000)
- 4/2015-8/2016, *State Scholarship Foundation* fellowship for post-doctoral studies (M. Theodoropoulou): **«Bioinformatics studies of structure and function of membrane proteins»** (€19.900)
- 6/2016-6/2019, *State Scholarship Foundation* fellowship for doctoral studies (K. Vennou): **«Methodology for analysis and meta-analysis of gene expression studies»** (€29.408)
- 8/2015-7/2016, **«Information System for Patient Monitoring»**, *Private Funding* (donation) (17.250 €)
- 2/2014-10/2015, **«Integration of data from multiple sources (IntDaMuS): a fusion of epidemiology and bioinformatics with applications to complex diseases»**, ARISTEIA II project, funded by the *General Secreteriat of Research and Technology* (180.000 €)
- 3/2012-2/2015, **«Bioinformatics approaches for studying membrane proteins and their implications in disease (MEBIO»**, SYNERGASIA 2009 project, funded by the *General Secreteriat of Research and Technology*» (67.300 €)

- 10/2009 – 10/2010, **«Genetic epidemiology of metabolic syndrome: identification of genes predisposing to hypertension, diabetes and obesity»**, project funded by the *Ministry of Health* (9.000 €)
- 10/2009 – 10/2010, «**Algorithms for clustering and visualization in systems biology»**, project for post-doctoral research (G. Pavlopoulos) awarded by the *State Scholarship Foundation*, (7.200 €)

Research Grants and Funding (as researcher)

- 01/2006-12/2006: **"PYTHAGORAS II: Mathematical models for Bioinformatics"** (EPEAEK)
- 06/2005-08/2006: **"PYTHAGORAS: Development of original methodology and software for constructing multiple alignments of biological sequences and their objective evaluation"** (EPEAEK)
- 5/2005- 8/2006: **"Postgraduate program in Bioinformatics"** (EPEAEK)
- 11/2002-05/2005: **"IRAKLEITOS: Prediction of structure and function of membrane proteins"** (EPEAEK)
- 4/2001-12/2003: **"Development of an integrated framework for studying transmembrane receptors and their ligands through the Internet"**
- 4/2000- 8/2000: **"Biostatistics action"** (EPEAEK)