

# **GEORGE POTAMIAS**

**Principal Researcher**  
(Researcher B)

Institute of Computer Science  
Foundation for Research & Technology – Hellas (FORTH)

[potamias@ics.forth.gr](mailto:potamias@ics.forth.gr)  
[www.ics.forth.gr/~potamias/GeorgePotamias.htm](http://www.ics.forth.gr/~potamias/GeorgePotamias.htm)

---

## **CURRICULUM VITAE**

---

September 2017

# CONTENTS

---

<b>BRIEF BIO-SKETCH .....</b>	<b>1</b>
<b>RESEARCH INTERESTS .....</b>	<b>2</b>
<b>SCHOLARSHIPS .....</b>	<b>2</b>
<b>ACADEMIC ACTIVITIES .....</b>	<b>2</b>
Teaching .....	2
Diploma Theses [supervised] .....	2
Post-graduate Theses [supervised / committee member] .....	3
PhD theses [supervised] .....	3
<b>SERVICES TO THE SCIENTIFIC COMMUNITY .....</b>	<b>3</b>
Journal Reviewer .....	3
Scientific Committees & Boards .....	3
<b>R&amp;D PROJECTS .....</b>	<b>5</b>
National [Greek-funded] .....	5
European/International .....	5
<b>SW TOOLS .....</b>	<b>6</b>
<b>PUBLICATIONS.....</b>	<b>7</b>
PhD Thesis .....	7
Edited Volumes & Book Chapters.....	7
Invited Talks.....	7
Journals & Periodicals.....	8
International Conferences.....	10
Abstracts, Posters, Presentations .....	14



## GEORGE POTAMIAS

### BRIEF BIO-SKETCH

Name F. Surname:	George A. Potamias
Marital Status:	Married, 1 child
Current Position:	Principal Researcher (Researcher B), Institute of Computer Science, Foundation for Research & Technology – Hellas (FORTH), Heraklion, Crete, Greece.
Work Address:	Institute of Computer Science, Foundation for Research & Technology – Hellas (FORTH), N. Plastira 100, Vassilika Vouton, 70013 Heraklion, Crete, Greece.
Phones:	(+30) 2810 391693 (work) (+30) 6974648090 (mobile)
Email:	<a href="mailto:potamias@ics.forth.gr">potamias@ics.forth.gr</a>
Home Page:	<a href="http://www.ics.forth.gr/~potamias/GeorgePotamias.htm">http://www.ics.forth.gr/~potamias/GeorgePotamias.htm</a>
1957	Born in Athens.
1975	High school graduation.
1983	<b>BSc Mathematics</b> , Dept. Of Mathematics, University of Patras, patras, Greece.
1983-1985	▪ <b>Graduate studies</b> in the areas of Mathematical Logic and Expert Systems and participation in research activities (group and attendance of seminars) on “Computational Theory & Algorithms”, Dept. of Mathematics, University of Patras. ▪ <b>Professional activities:</b> (a) Design and development of a “payroll information system” [for civilian employees in the Greek air-force chapter of Andravida, Greece]; (b) Tutoring Mathematics to high-school students.
1985-1991	<b>PhD studies</b> on Artificial Intelligence, Expert Systems, Mathematical Logic, Dept. of Mathematics, University of Patras, Patras, Greece.
1988-Oct.1989	Visit at the Dept. of Chemical Engineering, Expert Systems Applications & Development Group (ESADG), Katholic University of Leuven (KUL), Leuven, Belgium – working on the design and development of an “Expert System for Chemical Catalysts Selection” [under the supervision of Prof. M. Rijckaert].
Nov. 1989-Nov.1989	Military service (Greek Air-force)
Febr. 1992	<b>PhD</b> in the areas of Artificial Intelligence, Expert Systems and Mathematical Logic. <i>Thesis: An Expert System in Chemical catalysis - ESCAT: Expert System in catalysis: A Study in Knowledge Representation, Acquisition and Retrieval</i> (in Greek). Dept. of Mathematics, University of Patras, Patras, Greece, 1992.
1992-1999	<b>Research staff</b> , Institute of Computer Science, FORTH, Heraklion, Crete, Greece.
1992-2005	<b>Adjunct professor</b> - graduate and under-graduate courses at (a) Dept. of Computer Science, University of Crete [“Machine Learning” and “Medical Informatics” undergraduate and graduate courses], and (b) Dept. of Production Engineering & Management [“Expert Systems” and “Knowledge and Decision Engineering” undergraduate courses]
2000-2004	<b>Associate Researcher</b> (Researcher C) [elected], Institute of Computer Science, Foundation for Research & Technology – Hellas (FORTH), Heraklion, Crete, Greece.
2005-...	<b>Principal Researcher</b> (Researcher B), Institute of Computer Science, Foundation for Research & Technology – Hellas (FORTH), Heraklion, Crete, Greece.
2008-2012	<b>Adjunct Professor:</b> (a) Greek Open University [“Discrete Mathematics & Mathematical Logic”, 2008-2012], and (b) Dept. of Economics, University of Patras, Patras, Greece [“Statistics I & II”, 2010-2012].
2016-...	Member of the <b>coordination committee</b> of the “Bioinformatics” graduate course, Dept. of Medicine, University of Crete – <b>Teaching</b> “Probability Theory”.

## RESEARCH INTERESTS

My R&D activities and interests fall into the general areas of **Computational Medicine** and **Translational Bioinformatics**, and are oriented around the design, development and customization of advanced **Machine Learning** and **Knowledge Discovery** methodologies, tools, systems and services to cope with huge, complex and heterogeneous **clinico-genomic data**. The focus is on the devise of effective and reliable **predictive models** towards the realization of **personalized and precision medicine** protocols and services.

## SCHOLARSHIPS

- ❖ NATO Scientific Committee – for attending the “Logic of Programming and Calculi of Discrete Design” summer-school, July 1986, Marktoberdorf, Germany.
- ❖ NATO Scientific Committee – for participating the “Expert Judgment and Expert Systems” international workshop, Porto, Portugal, 1986.
- ❖ NATO Grands for International Collaboration in Research – visit at the Dept. of Chemical Engineering, Expert Systems Applications & Development Group (ESADG), Katholic University of Leuven (KUL), Leuven, Belgium – working on the design and development of an “Expert System for Chemical Catalysts Selection”, 1988.

## ACADEMIC ACTIVITIES

### Teaching

- 2016-... “Probability Theory”, “Bioinformatics” graduate course, Dept. of Medicine, University of Crete.
- 2010-2011. “Statistics” (in Greek, undergraduate course), Dept. of Economics, University of Patras, Patras, Greece [adjunct professor].
- 2008-2012. “Discrete Mathematics & Mathematical Logic” (in Greek, undergraduate course), Hellenic Open University [scientific staff].
- 1994-2002. “Machine Learning” (graduate and under-graduate courses), Dept. of Computer Science, University of Crete, Heraklion, Crete, Greece [adjunct professor].
- 1992-1995. “Knowledge and Decision Engineering” (undergraduate course), Dept. of Production Engineering, Technical University of Crete, Chania, Crete, Greece [adjunct professor].

### Diploma Theses [supervised]

- 2014 – N. Psalidakis. *Genome Wide Association Studies - High Density Genotyping & SNP Selection for pharmacological response Association Studies: The Case of Bipolar Disease Disorder*. Dept. of Computer Science, University of Crete [Supervisor].
- 2003 – G. Doxastakis. *Implementation of an XQUERY-based Querying Environment on XML Documents: Application on Genomic Data*. Dept. of Computer Science, University of Crete [Supervisor].
- 2003 – V. Koutsomanis. *KBANN Implementation*. Dept. of Computer Science, University of Crete [Supervisor].
- 2002 – D. Antonakaki. *Implementation of the Multiple Constraint Satisfaction Based Learning with Constraint Satisfaction Libraries*. Dept. of Computer Science, University of Crete [Supervisor].
- 2002 – A. Kanterakis. *User-driven Knowledge Extraction from XML Documents*. Dept. of Computer Science, University of Crete [Supervisor].
- 2001 – L. Koumakis. *Automated Construction and Revision of Semantic Networks*. Dept. of Computer Science, University of Crete [Supervisor].
- 2001 – H. Hatzioannou. *Coping with Vague Concepts: Constructive Induction of In-Between Classes*. Dept. of Computer Science, University of Crete [Supervisor].
- 2000 – N. Yannadakis. *Implementation of the Multiple Iterative Constraint Satisfaction Based Learning Algorithm (MICSL)*. Dept. of Computer Science, University of Crete [Supervisor].
- 1997 – P. Fragkou. *Email categorization: The mail-Class System*. Dept. of Computer Science, University of Crete [Supervisor].

### **Post-graduate Theses** [supervised / committee member]

- 2006 – E. Papoutsidis. *A biomedical GRID infrastructure to enable high performing data mining and knowledge extraction operations*. Dept. of Computer Science, University of Crete [Supervising committee member].
- 2006 – A. Simeonides. *microRNA Regulatory Networks and the Gene Ontology: Analysis and Visualization*. Dept. of Computer Science, University of Crete [thesis defense committee member].
- 2006 – H. Kondylakis. *Quete: Query Processing in distributed database systems*. Dept. of Computer Science, University of Crete [thesis defense committee member].
- 2006 – A. Manakanatas. *Design and Implementation of a tool for semi-automated semantic schema matching*. Dept. of Computer Science, University of Crete [thesis defense committee member].
- 2006 – D. Antonakaki. *Mining the Biomedical Literature - The MineBioText system: Discovery of Gene, Protein and Disease Correlations*. Dept. of Computer Science, University of Crete [Supervisor].
- 2005 – A. Arvelakis. *Using Treemaps to visualize Gene Microarray and Phylogenetic Data*. Dept. of Computer Science, University of Crete [thesis defense committee member].
- 2005 – A. Kanterakis. *Gene Selection & Clustering Microarray Data: The MineGene System*. Dept. of Computer Science, University of Crete [Supervisor].
- 2004 – L. Koumakis. *HealthObs: Health Observatory*. Dept. of Computer Science, University of Crete [Supervisor].
- 2000 – C. Hristofis. *Knowledge discovery from distributed and heterogeneous databases: A clinical information systems application*. Dept. of Computer Science, University of Crete. [Supervisor].
- 1997 – C. Kloukinas. *On-the-fly clustering of OLTP workload characterizations*. Dept. of Computer Science, University of Crete [Supervisor].

### **PhD theses** [supervised]

- 2014 – L. Koumakis. *Computational Methods for Knowledge Discovery from Heterogeneous Data Sources: Methodology and Implementation on Biological and Molecular Sources*. School of Production Engineering & Management, Technical University of Crete [Supervising committee].

## **SERVICES TO THE SCIENTIFIC COMMUNITY**

### **Journal Reviewer**

- ❖ Biomedical Signal Processing and Control journal
- ❖ BMC Medical Research Methodology journal
- ❖ Journal of Translational Medicine
- ❖ International Journal on Artificial Intelligence Tools
- ❖ Intelligent Decision Technology: An International Journal

### **Scientific Committees & Boards**

- Program committee member and reviewer, *International Workshop on Machine learning, Optimization and big Data (MOD 2016)*, Taormina-Sicily, Italy, August 26-29, 2016.
- Program committee member and reviewer, *8<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN 2016)*, Thessaloniki, Greece, May 18-20, 2016.
- Program committee member and reviewer, *International Workshop on Machine learning, Optimization and big Data (MOD 2015)*, Taormina-Sicily, Italy, July 21-24, 2015.
- Program committee member, *27<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2015)*, Vietri sul Mare, Italy, November 9-11, 2015.
- Program committee member and reviewer, *26<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2014)*, Limassol, Cyprus, November 10-12, 2014.
- Program committee member and reviewer, *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD 2014)*, Nancy, France, September 15-19, 2014.
- Program committee member and reviewer, *8<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN 2014)*, Athens, Greece, May 15-17, 2014.
- Program committee member, *26<sup>th</sup> IEEE International Symposium on Computer-Based medical Systems (CBMS 2013)*, Porto, Portugal, June 20-22, 2013.

- Program committee member, *6<sup>th</sup> Special Track - Grid and Cloud Computing in Biomedicine and Life Sciences (CBMS 2013)*, Porto, Portugal, June 20-22, 2013.
- Program committee member and reviewer, *24<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2012)*, Athens, Greece, November 7-9, 2012.
- Local organizing committee member, *7<sup>th</sup> Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB12)*, Heraklion, Crete, Greece, October 4-6, 2012.
- Program committee member and reviewer *7<sup>th</sup> Hellenic Conference on Artificial Intelligence*, Lamia, Greece, May 28-31, 2012.
- Program committee member, *5<sup>th</sup> Special Track - Grid and Cloud Computing in Biomedicine and Life Sciences (CBMS 2012)*, Rome, Italy, June 20-22, 2012.
- Scientific Program committee member, *6<sup>th</sup> Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB11)*, Patras, Greece, October 6-7, 2011.
- Program committee member and reviewer, *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD 2011)*, Athens, Greece, September 5-9, 2011.
- Program committee member and reviewer, *6<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN 2010)*, Athens, Greece, May 4-7, 2010.
- Co-organizer, *BMIINT: Biomedical Informatics and Intelligent Methods in the Support of Genomic medicine workshop (AIAI 2009)*, Thessaloniki, Greece, April 24, 2009.
- Program committee member, *5<sup>th</sup> IFIP Conference on Artificial Intelligence Applications and Innovations (AIAI 2009)*, Thessaloniki, Greece, April 23-25, 2009.
- Program committee member and reviewer, *20<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2008)*, Dayton, Ohio, USA, November 3-5, 2008.
- Program committee member and reviewer, *5<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN'08)*, Syros Island, Greece, October 4-7, 2008.
- Co-organizer, *1<sup>st</sup> Hellenic Bioinformatics and Medical Informatics Meeting*, Biomedical Research Foundation Academy of Athens, Athens, Greece, October 4-5, 2007.
- Program committee member & Reviewer, *19<sup>th</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2007)*, Patras, Greece, October 29-31, 2007.
- Scientific committee member & Reviewer, *7<sup>th</sup> International Symposium on Biological & Medical Data Analysis*, Thessaloniki, Greece, December 7-8, 2006.
- Scientific committee member & Reviewer, *2<sup>nd</sup> ADBIS Workshop on Data Mining & Knowledge Discovery (ADMKD2006)*, Thessaloniki, Greece, September 6, 2006.
- Organizer, *Advancing Clinico-Genomics: Information Integration & Knowledge Discovery Issues*, Scientific Workshop, ERCIM Biomedical Informatics Group, Budapest, Hungary, May 30, 2006.
- Member of the Administrative Council of the *Hellenic Artificial Intelligence Society (EETN)*, 2005-2006.
- Chair, *4<sup>th</sup> Hellenic Conference on Artificial Intelligence (SETN06)*, Heraklion, Crete, Greece, May 18-20, 2006.
- Scientific committee member & Reviewer, *6<sup>th</sup> International Symposium on Biological & Medical Data Analysis*, Aveiro, Portugal, November 10-11, 2005.
- Scientific committee member & Reviewer, *5<sup>th</sup> International Symposium on Biological & Medical Data Analysis*, Barcelona, Spain, November 18-19, 2004.
- Program committee member, *3<sup>rd</sup> Hellenic Conference on Artificial Intelligence (SETN04)*, Samos Island, Greece, May 5-8, 2004.
- Program committee member, *2<sup>nd</sup> Hellenic Conference on Artificial Intelligence (SETN-02)*, Thessaloniki, Greece, April 11-12, 2002.
- Organizing and Program committee member, *Machine Learning in the New Information Age (MLNIA)*, ECML2000, Barcelona, Spain, May 31 - June 2, 2000.
- Organizing committee member, *1<sup>st</sup> Panhellenic Logic Symposium*, Nicosia, Cyprus, July 21-24, 1997.
- Evaluator, *INCO-COPERNICUS Information Technologies*, European program, 1996.
- Program committee member & Reviewer, *Machine Learning meets Human Computer Interaction workshop*, ICML 1996, Bari, Italy, July 3-6, 1996.

## R&D PROJECTS

### National [Greek-funded]

- NP.1. ELIXIR-GR: MANAGING AND ANALYZING BIOLOGICAL DATA. (2016). Greek Research Infrastructure (ELIXIR Europe node; representing ICS-FORTH with Prof. D. Plexousakis).
- NP.2. PHARMACOGENOMIC INFORMATICS. (2015). “*Modern Technological Approaches and Applications in the Field of Biology of Biophotonics and Health*”, in the context of FORTH and "General Secretariat for Research & Technology/State Scholarships Foundation/SIEMENS 2014-2016" program. (~58.000€, FORTH-ICS scientific responsible).
- NP.3. ELECTRONIC MOLECULAR DIAGNOSTICS ASSISTANT – eMoDiA. (2013-2015). Operational Program “Competitiveness and Entrepreneurship” (OPCEII), COOPERATION 2011 (11SYN-10-415), Ministry of Development and Competitiveness. (200.000€, FORTH-ICS scientific responsible).
- NP.4. PROGNOCHIP – DEVELOPMENT AND ESTABLISHMENT OF DNA MICROARRAY TECHNOLOGY IN GREECE: IDENTIFICATION AND VALIDATION OF CLASSIFICATION AND PROGNOSIS MOLECULAR MARKERS FOR BREAST CANCER. (2003-2007). Operational Program 'Competitiveness and Entrepreneurship' (OPCEI). Greek General Secretariat for Research & Technology. (75.000€, FORTH-ICS scientific responsible)
- NP.5. DEVELOPMENT OF AN INTELLIGENT SYSTEM FOR THE EARLY DIAGNOSIS OF CORONARY DISEASE. (2000-2002). PENED program, Greek General Secretariat for Research & Technology. (50.000€, FORTH-ICS scientific responsible)
- NP.6. DESIGN OF A DNA SEQUENCES BASE CALLING METHODOLOGY. (2000-2002). PENED program. Greek General Secretariat for Research & Technology (20.000€, FORTH-ICS scientific responsible)
- NP.7. DESIGN & DEVELOPMENT OF AN EXPERT SYSTEM FOR THE SELECTION OF CERAMIC MATERIALS FOR ELECTRONIC PACKAGES. (1996-1998). PENED program, Greek General Secretariat for Research & Technology. (20.000€, FORTH-ICS scientific responsible)
- NP.8. AUTOMATED DEDUCTION FROM DATABASES. (1985-1987). PENED program, Greek General Secretariat for Research & Technology. (25.000€, principal researcher)

### European/International

- EIP.1. ENCCA: EUROPEAN NETWORK FOR CANCER RESEARCH IN CHILDREN AND ADOLESCENTS. (2011-2015). EU-FP7-HEALTH-22417625. (22.000€, principal researcher) – [www.encca.eu](http://www.encca.eu)
- EIP.2. P-MEDICINE: FROM DATA SHARING AND INTEGRATION VIA VPH MODELS TO PERSONALIZED MEDICINE. (2011-2015). EU-FP7-ICT-270089. (22.000€, principal researcher) – [p-medicine.eu](http://p-medicine.eu)
- EIP.3. GEN2PHEN: GENOTYPE-TO-PHENOTYPE DATABASES: A HOLISTIC SOLUTION. (2008-2013). EU-FP7-HEALTH-200754. (140.242€, FORTH-ICS scientific responsible) – [www.gen2phen.org](http://www.gen2phen.org)
- EIP.4. ACTION-GRID: INTERNATIONAL COOPERATIVE ACTION IN GRID COMPUTING & BIOMEDICAL INFORMATICS. (2008-2010). EU-FP6-IST-224176. (118.770€, FORTH-ICS scientific responsible) – [cordis.europa.eu/project/rcn/86720\\_en.html](http://cordis.europa.eu/project/rcn/86720_en.html)
- EIP.5. LOCCANDIA: LAB-ON-CHIP BASED PROTEIN PROFILING FOR CANCER DIAGNOSIS. (2006-2009). EU-FP6-IST-034202. (55000€, principal researcher) – [cordis.europa.eu/projects/rcn/79333\\_en.html](http://cordis.europa.eu/projects/rcn/79333_en.html)
- EIP.6. ACGT: ADVANCING CLINICO-GENOMIC TRIALS ON CANCER. (2006-2010). EU-FP6-IST-026996. (140.222€, principal researcher) – [acgt.ercim.eu](http://acgt.ercim.eu)
- EIP.7. WS-TALK: WEB SERVICES COMMUNICATING IN THE LANGUAGE OF THEIR USER COMMUNITY. (2004-2006). EU-FP6-COOP-ICT-006026. (378.000€, principal researcher) – [cordis.europa.eu/project/rcn/72188\\_en.html](http://cordis.europa.eu/project/rcn/72188_en.html)
- EIP.8. INFOBIOMED: STRUCTURING EUROPEAN BIOMEDICAL INFORMATICS TO SUPPORT INDIVIDUALIZED HEALTHCARE. (2004-2007). EU-FP6-IST-507585. (528000€, principal researcher) – [cordis.europa.eu/project/rcn/71126\\_en.html](http://cordis.europa.eu/project/rcn/71126_en.html)

- EIP.9. IRAIA: GETTING ORIENTATION IN COMPLEX INFORMATION SPACES AS AN EMERGENT BEHAVIOR OF AUTONOMOUS AGENTS. (2000-2002). EU-FP5-IST-10602. (85000€, principal researcher) – [cordis.europa.eu/projects/rcn/60803\\_en.html](http://cordis.europa.eu/projects/rcn/60803_en.html). -- *Tool for the coherence analysis for large collections of time series* – [cordis.europa.eu/fetch?CALLER=RESULINK\\_EN&ACTION=D&RCN=29040](http://cordis.europa.eu/fetch?CALLER=RESULINK_EN&ACTION=D&RCN=29040)
- EIP.10. INTERCARE: THE INTERWORKING AND INTEROPERABILITY OF NETWORKED SERVICES FOR HEALTHCARE USING INTERNET BASED TECHNOLOGY. (1998-2000). EU-FP5-Health Telematics-HC4011 (200.000€, principal researcher)
- EIP.11. EVONET: THE NETWORK OF EXCELLENCE IN EVOLUTIONARY COMPUTING. (2000-2003). EU-FP5-IST-14087 (associate node, ICS-FORTH scientific responsible) – [cordis.europa.eu/project/rcn/53691\\_en.html](http://cordis.europa.eu/project/rcn/53691_en.html)
- EIP.12. MLNET II: MACHINE LEARNING NETWORK OF EXCELLENCE IN MACHINE LEARNING AND RELATED FIELDS. (1999-2000). EU-FP4-ESPRIT-29288 (associate node, ICS-FORTH scientific responsible) – [cordis.europa.eu/project/rcn/48801\\_en.html](http://cordis.europa.eu/project/rcn/48801_en.html)
- EIP.13. STAR\*: SEAMLESS TELEMATICS ACROSS REGIONS. (1996-1999). EU-FP4-Health Telematics-HC1045 (115.000€, principal researcher) – [cordis.europa.eu/project/rcn/32077\\_en.html](http://cordis.europa.eu/project/rcn/32077_en.html)
- EIP.14. KESO: KNOWLEDGE EXTRACTION FOR STATISTICAL OFFICES. (1996-1999). EU-FP4-ESPRIT4-20596. (100.000€, principal researcher) – [cordis.europa.eu/project/rcn/33678\\_en.html](http://cordis.europa.eu/project/rcn/33678_en.html)
- EIP.15. FAPSY: AN INFORMATION SYSTEM PRESENTING STATISTICAL INFORMATION SPACES OF ECONOMIC DATA. (1995-1997). EU-FP5-ESPRIT-20343 (55.000€, principal researcher) – [http://cordis.europa.eu/project/rcn/33651\\_en.html](http://cordis.europa.eu/project/rcn/33651_en.html)
- EIP.16. GAMES II: A GENERAL ARCHITECTURE FOR MEDICAL EXPERT SYSTEMS. (1992-1994). EU-AIM-A2034 (125.000€, principal researcher) – [cordis.europa.eu/project/rcn/17092\\_en.html](http://cordis.europa.eu/project/rcn/17092_en.html)
- EIP.17. MLT: MACHINE LEARNING TOOLBOX. (1989-1993). EU-ESPRIT-P2154 (500000€, principal researcher) – [cordis.europa.eu/project/rcn/8366\\_en.html](http://cordis.europa.eu/project/rcn/8366_en.html)
- EIP.18. CRAI: COURSEWARE RESOURCES BASED ON ARTIFICIAL INTELLIGENCE. (1989-1990). EU-COMMET European program (PhD candidate; scientific responsible: Marcel Rijckaert, KUL, Leuven, Belgium).
- EIP.19. EXPERT SYSTEM TECHNIQUES FOR CHEMICAL CATALYSTS SELECTION. (1987-1988). NATO Grants for International Collaboration in Research (PhD candidate; scientific responsible: George Metakides, Univ. of Patras, Patras, Greece).
- EIP.20. SPATIAL & TEMPORAL PATTERNS OF ENVIRONMENTALLY INFLUENCED DISEASES IN GREECE. (1985-1988). Environmental Protection Agency (EPA), USA (PhD candidate; scientific responsible: George Metakides, Univ. of Patras, Patras, Greece).

## SW TOOLS

Designed and developed by students and ICS-FORTH staff under my supervision.

- SW.1. **MUTATIONINFO** – A TOOL TO QUICK RETRIEVE GENOMIC POSITION FROM HGVS VARIANTS [A. Kanterakis, 2016]
- SW.2. **ePGA** – ELECTRONIC PHARMACOGENOMICS ASSISTANT [K. Lakiotaki, E. Kartsaki, A. Kanterakis, 2015]
- SW.3. **MINEPATH** – A MOLECULAR PATHWAY ANALYSIS TOOL [L. Koumakis, 2014]
- SW.4. **MINEBIOTEXT** – A BIOMEDICAL LITERATURE MINING TOOL [D. Antonakaki, 2006]
- SW.5. **MINEGENE** – A MACHINE LEARNING TOOL FOR MINING GENE EXPRESSION PROFILES [A. Kanterakis, 2005]
- SW.6. **HealthObs** – HEALTH OBSERVATORY: MINING DISTRIBUTED & HETEROGENEOUS CLINICAL DATA SOURCES [L. Koumakis, 2004]
- SW.7. **MINE TIME** – TOOL FOR THE COHERENCE ANALYSIS FOR LARGE COLLECTIONS OF TIME SERIES [G. Potamias, 2002]
- SW.8. **MICSL** – MULTIPLE ITERATIVE CONSTRAINT SATISFACTION LEARNING [G. Potamias, 1999]



## PUBLICATIONS

### PhD Thesis

Potamias G. (1992). *An Expert System for Catalysts Selection – ESCAT: Expert Systems in Catalysis – A Study in Knowledge Representation, Acquisition & Retrieval* (in Greek). Dept. of Mathematics, University of Patras, Patras, Greece. - [thesis.ekt.gr/thesisBookReader/id/1979](http://thesis.ekt.gr/thesisBookReader/id/1979) - page/1/ mode/2up

### Edited Volumes & Book Chapters

- VB.1. L. Koumakis, C. Mizzi and G. Potamias (2016). Bioinformatics tools for Data Analysis. In G. Patrinos, W. Ansorge & P.B. Danielson (eds) *Molecular Diagnostics* 3rd Edition (to be published).
- VB.2. G. Potamias and V. Moustakis (eds) (2009). *BMMINT: Biomedical Informatics and Intelligent Methods in the Support of Genomic Medicine*. AIAI 2009 workshop, April 24, Thessaloniki, Greece, *CEUR Proceedings*, vol. 475.
- VB.3. Koumakis L., Moustakis V., and Potamias G. (2009). Web Services Automation. Chapter in M.M. Cunha, E.F. Oliveira, A.J. Tavares and L.G. Ferreira (Eds) *Handbook of Research on Social Dimensions of Semantic Technologies and Web Services*, IGI Global, ISBN:1605666505.
- VB.4. G. Antoniou, G. Potamias, D. Plexousakis, C. Spyropoulos (eds). (2006). Advances in Artificial Intelligence. *Proceedings 4th Hellenic Conference on Artificial Intelligence*, May 18-20, 2006, Heraklion, Crete. *Lecture Notes in Artificial Intelligence*, 3955, Springer-Verlag.
- VB.5. G. Potamias, V. Moustakis, M. van Someren (eds) (2000). Machine Learning in the New Information Age (MLNIA), *ECML/MLNet* workshop, Barcelona, Spain.
- VB.6. Metakides G., and Nerode A. (1996). *Principles of Logic and Logic programming, contributions* by A. Sinachopoulos and George Potamias. *Studies in Computer Science and Artificial Intelligence*, North-Holland Publishing Co., Amsterdam, 1996, ISBN: 0-444-81644-5.
- VB.7. G. Metakides (1992). *From Logic to Logic Programming and Prolog* (in Greek), contribution by G. Potamias in writing and editing the chapter about Prolog. Kardamitsa editions, Athens, Greece, ISBN: 960-7262-59-X.

### Invited Talks

- IT.1. Potamias G. (2014). *Boosting pharmacogenomics: A translational bioinformatics perspective*. In “2014 Golden Helix Summer School”, Aegina Island, Greece, September 11-15, 2014.
- IT.2. Potamias G. (2014). *Translating -omics: the pharmacogenomics dimension*. *eHealth Forum 2014*, In “From Research to Effective Impact on Health” parallel session, Athens, Greece, May 12, 2014.
- IT.3. Moustakis V., and Potamias G. (2009). *Semantic Web and Grid Facilitation for Genome-Wide Association Studies – Challenges for Nanomedicine*. In “Nanoinformatics: New Challenges for Biomedical Informatics at the Nano Level”, *MIE 2009 Workshop 9*, p. 24, Sarajevo, Bosnia and Herzegovina, September 1, 2009.
- IT.4. Potamias G., Tsiknakis M., and Kafetzopoulos D. (2007). *Cancer, Clinico-Genomics and Biomedical Informatics: The ACGT Approach*. In “International Symposium on Biomedical Informatics in Europe”, Barcelona, Spain, June 26-27, 2007.
- IT.5. Kafetzopoulos D., Potamias G., and Tsiknakis M. (2007). *Protein Profiling and Diagnosis with Lab-on-Chip and Proteomics Technology: The LOCCANDIA Integrated Clinico-Proteomics Environment*. In “International Symposium on Biomedical Informatics in Europe”, Barcelona, Spain, June 26-27 June 2007.
- IT.6. Potamias G. (2006). *Knowledge Discovery in Clinico-Genomics: A Multi-Strategy Data-Mining Methodology*. In “Advancing Clinico-Genomics: Information Integration & Knowledge Discovery Issues” ERCIM BMI/WG Scientific Workshop, Budapest, Hungary, May 10, 2006.

- IT.7. Potamias G. (2006). *Knowledge Discovery in Support of Integrated Clinico-Genomic Research Studies*. In “1<sup>st</sup> Cretan Bioinformatics Forum”, Heraklion, Crete, Greece, 19 June, 2006.
- IT.8. Potamias G. (2005). *Technological Platforms for Genomic Medicine*. In “MIE 2005 Workshop organized by INFOBIOMED NoE” Geneva, Switzerland, August 28 - June 1, 2005.
- IT.9. Potamias G. (2004). *ERCIM WG in Biomedical Informatics - Relevant International Activities in Biomedical Informatics workshop*, In “5th International Symposium on Biological & Medical Data Analysis” (ISBMDA), Barcelona, November 18-19, 2004.
- IT.10. Potamias G. (2001). *Knowledge Discovery Technology & The HYGEIAnet Information Sources*. In session “Integrated Healthcare Telematic Services”, 24<sup>th</sup> Paediatric Panhellenic Surgery Conference, Athens, Greece.
- IT.11. Potamias G. (2001). *Machine Learning and Medicine*. In “Machine Learning and Knowledge Processing in Science and Enterprises” meeting, Athens University of Economics & Business, Athens, Greece.
- IT.12. Potamias G. (2000). *Mining and Visualization of Statistical Information Spaces – Knowledge Discovery from Distributed and Heterogeneous Data Sources: Problems, Issues, technology, Set-up and Realization*. In “HELDINET seminar: Knowledge Discovery from Data Bases”, Aristotle University of Thessaloniki, Thessaloniki, Greece.

#### **Journals & Periodicals** [full papers; peer reviewed; indexed by ISI / Google Scholar / Scopus]

- JP.1. Koumakis, L., Roussos, P., Potamias, G. (2017). Minepath.org: a free interactive pathway analysis server. *Nucleic Acids Res.* 2017 Apr 20. doi: 10.1093/nar/gkx278.
- JP.2. Lakiotaki K, Kanterakis A, Kartsaki E, Katsila T, Patrinos GP, Potamias G. (2017) Exploring public genomics data for population pharmacogenomics. *PLoS ONE* 12(8): e0182138. <https://doi.org/10.1371/journal.pone.0182138>
- JP.3. Koumakis, L., Kanterakis, A., Kartsaki, E., Chatzimina, M., Zervakis, M., Tsiknakis, M., Kafetzopoulos, D., Marias, K., Moustakis, V., Potamias, G. (2016). MinePath: Mining for phenotype differential sub-paths in molecular pathways. *PLoS Comput Biol.* 12(11): e1005187.
- JP.4. Lakiotaki, K., Kartsaki, E., Kanterakis, A., Katsila, T., Patrinos, G., Potamias, G. (2016). A: a web-based Information System for Translational Pharmacogenomics. *PLoS ONE* 11(9):e0162801.
- JP.5. Koumakis, L., Sigdel, K., Potamias, G., Sfakianakis, S., van Leeuwen, J., Zacharioudakis, G., Moustakis, V., Zervakis, M., Bucur, A., Marias, K., Graf, N., Tsiknakis, M., (2015). Bridging miRNAs and pathway analysis in clinical decision support: a case study in nephroblastoma. *Netw Model Anal Health Inform Bioinforma.* 4:30
- JP.6. Koumakis, L., Potamias, G., Tsiknakis, M., Zervakis, M., Moustakis, V. (2015). Integrating Microarray Data and GRNs. *Methods Mol Biol.* 1375:137-153.
- JP.7. Kanterakis, A., Kuiper, J., Potamias, G., Swertz, M.A. (2015). PyPedia: using the wiki paradigm as crowd sourcing environment for bioinformatics protocols. *Source Code Biol Med.* 10:14.
- JP.8. Potamias G., Lakiotaki K., Katsila T., Lee MT., Topouzis S., Cooper DN., and Patrinos GP. (2014). Deciphering next-generation pharmacogenomics: an information technology perspective. *Open Biology* 4(7): 66-77.
- JP.9. Laine M.L., Moustakis V., Koumakis L., Potamias G., and Loose B.G. (2013). Modeling susceptibility to periodontitis. *Journal of Dental Research* 92(1): 45-50. [IADR/AADR William J. Gies Award for the best clinical research paper in 2013](#)
- JP.10. Potamias G., Kaforou S., and Kafetzopoulos D. (2012). Towards Optimal Microarray Universal Reference Sample Designs: An In-Silico Optimization Approach. *International Journal of Systems Biology and Biomedical Technologies* 1(2): 66-77.

- JP.11. Koumakis L., Moustakis V., Zervakis M., Kafetzopoulos D., and Potamias G. (2012). Coupling Regulatory Networks and Microarrays: Revealing Molecular Regulations of Breast Cancer Treatment Responses. *Lecture Notes in Computer Science 7297*: 239-246.
- JP.12. Maojo V., ..., Potamias G., et al., (2012). Nanoinformatics: developing new computing applications for nanomedicine, *Comput Sc Eng.* 94(6): 521-539.
- JP.13. Tsiliki G., Zervakis M., Ioannou M., Sanidas E., Stathopoulos E., Potamias G., Tsiknakis M., and Kafetzopoulos D. (2011). Multi-platform Data Integration in Microarray Analysis. *IEEE Trans Inf Technol Biomed.* 15(6): 806-812.
- JP.14. De la Iglesia D., Maojo V., Chiesa S., Martin-Sanchez F., Kern J., Potamias G., Crespo J., Garcia-Remesal M., Keuchkerian S., Kulikowski C., and Mitchell J.A. (2011). International Efforts in Nanoinformatics Research Applied to Nanomedicine. *Methods Inf Med.* 50(1): 84-95.
- JP.15. Sfakianakis S., Blazantonakis M., Dimou I., Zervakis M., Tsiknakis M., Potamias G., Kafetzopoulos D., and Lowe D. (2010). Decision support based on genomics: integration of data- and knowledge-driven reasoning. *International Journal of Biomedical Engineering and Technology* 3(3/4): 287-307.
- JP.16. Potamias G., Koumakis L., Kanterakis A., and Moustakis V. (2010). Towards the Discovery of Reliable Biomarkers from Gene Expression profiles: An Iterative Constraint Satisfaction Learning Approach. *Lecture Notes in Artificial Intelligence* 6040: 233-242.
- JP.17. Kern J., Fister K., Petrovecki M., Polasek O., Stevanovic R., Vuletic S., Maojo V., Martin-Sanchez F., Potamias G., de Quiros F.G.B., Gonzalez D., Legre L., and Moustakis V. (2008). Action-grid: International Networking in Grid Computing and Biomedical Informatics. *Acta Informatica Medica (AIM)* 16(3): 156-158.
- JP.18. Kanterakis A., Kafetzopoulos D., Moustakis D., and Potamias G. (2008). Mining Gene Expression Profiles and Gene Regulatory Networks: Identification of Phenotype-Specific Molecular Mechanisms. *Lecture Notes in Artificial Intelligence*, 5138: 97-109.
- JP.19. Tsiknakis M., Brochhausen M., Nabrzycki J., Pucacki J., Sfakianakis S., Potamias G., Desmedt C., and Kafetzopoulos D. (2008). A Semantic Grid Infrastructure Enabling Integrated Access and Analysis of Multilevel Biomedical Data in Support of Post-Genomic Clinical Trials on Cancer. *IEEE Trans Inf Technol Biomed.* 12(2): 205-217.
- JP.20. Potamias G., and Kanterakis, A. (2007). Feature Selection for the Promoter Recognition and Prediction Problem. *International Journal of Data Warehousing and Mining* 3(3): 60-78.
- JP.21. Analyti, A., Kondylakis, H., Manakanatas, D., Kalaitzakis, M., Plexousakis, D., and Potamias G. (2006). Integrating Clinical and Genomic Information through the PrognoChip Mediator. *Lecture Notes in Bioinformatics* 4345: 250-261.
- JP.22. Potamias G., May, M., and Ruping, S. (2006). Grid-based Knowledge Discovery in Clinico-Genomic Data. *Lecture Notes in Bioinformatics* 4345: 219-230.
- JP.23. Gonianakis M., Neonakis I., Gonianakis I., Baritaki M., Kypriotakis Z., Potamias G., Bouros D., and Kontou-Fili K. (2006). A 10-year aerobiological study (1994-2003) in the Mediterranean Island of Crete, Greece: grasses and other weeds, aerobiological data, and botanical and clinical correlations. *Allergy Asthma Proc.* 27(5): 363-370.
- JP.24. Gonianakis M.I., Neonakis I.K., Gonianakis I.M., Baritaki M.A., Bouros D., Potamias G., Kontou-Fili K.S. (2006). Mold allergy in the Mediterranean Island of Crete, Greece: a 10-year volumetric, aerobiological study with dermal sensitization correlations. *Allergy Asthma Proc.* 27(5): 354-362.
- JP.25. Koumakis L., Moustakis V., Kanterakis A., and Potamias G. (2005). Mining Time Series with MineTime. *Lecture Notes in Artificial Intelligence*, 3955: 158-168.
- JP.26. Antonakaki D., Kanterakis A., and Potamias G. (2005). Biomedical Literature Mining for Text Classification and Construction of Gene Networks. *Lecture Notes in Artificial Intelligence* 3955: 469-473.

- JP.27. Potamias G., and Kanterakis A. (2005). Supporting Clinico-Genomic Knowledge Discovery: A Multi-strategy Data Mining Process. *Lecture Notes in Artificial Intelligence* 3955, 520-524.
- JP.28. Potamias G., Koumakis L., and Moustakis V. (2005). Mining XML Clinical Data: The HealthObs System. *Ingenierie des Systemes d'Information* 10(1): 59-79.
- JP.29. Potamias G. (2004). Knowledgeable Clustering of Microarray Data. *Lecture Notes in Computer Science* 3337: 491-497.
- JP.30. Potamias G., and Dermon C. (2004). Protein Synthesis Profiling in the Developing Brain: A Graph Theoretic Clustering Approach. *Comput Methods Programs Biomed.* 76(2): 115-129.
- JP.31. Potamias G., and Moustakis V. (2004). Learning In-Between Concept Descriptions Using Iterative Induction. *Lecture Notes in Artificial Intelligence* 3025: 164-173.
- JP.32. Potamias G., Koumakis L., and Moustakis V. (2004). Gene Selection via Discretized Gene-Expression Profiles and Greedy Feature-Elimination. *Lecture Notes in Artificial Intelligence* 3025: 256-266.
- JP.33. Potamias G. (2002). Distance and Feature-Based Clustering of Time Series: An Application on Neurophysiology. *Lecture Notes in Computer Science* 2308: 237-248.
- JP.34. Potamias G. (2001). Content-Based Similarity Assessment in Multi-segmented Medical Image Data Bases. *Lecture Notes in Computer Science* 2123: 347-361.
- JP.35. Potamias G. (2001). Adaptive Classification of Web Documents to Users Interests. *Lecture Notes in Computer Science* 2563: 147-158.
- JP.36. Potamias G. (1999). MICSL: Multiple Iterative Constraint Satisfaction based Learning. *Intelligent Data Analysis* 3(4): 245-265.
- JP.37. Tserpes G., and Peristeraki P., Potamias G., and Tsimenides, N. (1999). Species distribution in the southern Aegean Sea based on bottom-trawl surveys. *Aquatic Living Resources* 12: 167-175.
- JP.38. Moustakis V., Blazadonakis M., Marazakis M., and Potamias G. (1998). Assessment of Boolean minimization in symbolic empirical learning. *Applied Artificial Intelligence* 12(4): 329-342.
- JP.39. Dzeroski S., Potamias G., Moustakis and V., Charissis G. (1997). Automated Revision of Expert Rules for Treating Acute Abdominal Pain in Children. *Lecture Notes in Computer Science* 1211: 98-109.
- JP.40. Potamias G., Moustakis V., and Charissis, G. (1997). Interactive Knowledge Base Construction and Maintenance. *Applied Artificial Intelligence* 11(7-8): 697-717.
- JP.41. Morik K., Potamias G., Moustakis V., and Charissis, G. (1994). Knowledgeable Learning using Mobal: A Medical case Study. *Applied Artificial Intelligence* 8(4): 579-592.

#### International Conferences [full papers; peer reviewed; indexed by ISI / Google Scholar / Scopus]

- IC.1. Karacapilidis, N., Potamias, G. (2016) Towards a sustainable solution for collaborative healthcare research. *4th International KES Conference on Innovation in Medicine and Healthcare (KES-InMed 2016)*, Tenerife, Spain, June 15-17, 2016, Springer [to appear]
- IC.2. Koumakis, L., Potamias, G., Marias, K., Tsiknakis, M. An algorithmic approach for the effect of transcription factor binding sites over functional gene regulatory networks. *IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE2015)*, Belgrade, Serbia, November 2-4, 2015, pp. 1-6. [BIBE2015 best paper award](#)
- IC.3. Potamias, G., Lakiotaki, K., Kartsaki, E., Kanterakis, A., Katsila, T., Patrinos G.P. (2015). Enabling Pharmacogenomic Services: Informatics and Computational Discovery Aspects. *IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE2015)*, Belgrade, Serbia, November 2-4, 2015. Pages
- IC.4. Hochedlinger N., Nitzlnader M., Falgenhauer M., Welte S., Hayn D., Koumakis L., Potamias G., Tsiknakis M., Saraceno D., Rinaldi E., Ladenstein R., Schreier G. (2015). Standardized Data Sharing in a Paediatric Oncology Research Network - A Proof-of-Concept Study. *Stud Health Technol Inform.* 212:27-34.
- IC.5. Koumakis L., Potamias G., Sfakianakis S., Moustakis V., Zervakis M., Graf N., and Tsiknakis M. (2014). miRNA based pathway analysis tool in nephroblastoma as a proof of principle for

- other cancer domains. (accepted) *14th International Conference on Bioinformatics and BioEngineering (BIBE2014)*, Boca Raton, Florida, USA, November 10-12, 2014.
- IC.6. Lakiotaki K., Patrinos GP., Potamias G. (2014). Information technology meets pharmacogenomics: Design specifications of an integrated personalized pharmacogenomics information system. *International Conference on Biomedical and Health Informatics (IEEE EMBS)*, Valencia, Spain, June 1-4, 2014.
- IC.7. Kalantzaki KD., Koumakis L., Bei ES., Zervakis ME., Potamias G., Kafetzopoulos D. (2013). Experimental model construction and validation of the ErbB signaling pathway. *IEEE 13th International Conference on Bioinformatics and Bioengineering (BIBE2013)*, Chania, Greece, November 10-13, 2013.
- IC.8. Koumakis L., Potamias G., Zervakis M., and Moustakis V. (2011). Integrating microarray data and gene regulatory networks: Survey and critical considerations. *10th International Workshop on Biomedical Engineering*, Kos Island, Greece, October 5-7, 2011.
- IC.9. Potamias G., Kaforou S., and Kafetzopoulos D. (2011). Towards Optimal Microarray Universal Reference Sample Designs: An In-Silico Optimization Approach. *Engineering Applications of Neural Networks, IFIP Advances in Information and Communication Technology*, Vol.363: 443-452.
- IC.10. Kanterakis A., Potamias G., Zaharioudakis G., Koumakis L., Sfakianakis S., and Tsiknakis M. (2010). Scientific discovery workflows in bioinformatics: a scenario for the coupling of molecular regulatory pathways and gene-expression profiles. *Stud Health Technol Inform.* 160(Pt2): 1304-1308.
- IC.11. Moustakis V., Laine M.L., Koumakis E., Loos B.G., and Potamias G. (2010). Modeling and Validating Genotype Knowledge: the Case of Periodontal Disease. *5th Cairo International Biomedical Engineering Conference*, Cairo, Egypt, December 16-18, 2010.
- IC.12. Tsiknakis M., Sfakianakis S., Zacharioudakis G., Koumakis L., Kanterakis A., Potamias G., and Kafetzopoulos D. (2009). A Semantically Aware Platform for the Authoring and Secure Enactment of Bioinformatics Workflows. *31st Annual International IEEE EMBS Conference (EMBC'09)*, pp. 5625-5628, Mineapolis, Minnesota, USA, September 2-6, 2009.
- IC.13. Koumakis L., Moustakis V., Tsiknakis M., Kanterakis A., Kafetzopoulos D., and Potamias G. (2009). Supporting Genotype-to-Phenotype Association Studies with Grid-Enabled Knowledge Discovery Workflows. *31st Annual International IEEE EMBS Conference (EMBC'09)*, pp. 6958-6962, Mineapolis, Minnesota, USA, September 2-6, 2009.
- IC.14. Chiesa, S., de la Iglesia, D., Crespo, J., Martin-Sanchez, F., Kern, J., Potamias G., and Maojo, V. (2009). European Efforts in Nanoinformatics Research Applied to Nanomedicine. *22nd Congress of the European Federation for Medical Informatics (MIE'09)*, Aug. 30 - Sept. 2, 2009, *Stud Health Technol Inform.* 150: 757-761.
- IC.15. De la Iglesia D., Chiesa S., Kern J., Maojo V., Martin-Sanchez F., Potamias G., Moustakis V., and Mitchell J.A. (2009). Nanoinformatics: new challenges for biomedical informatics at the nano level. *22nd Congress of the European Federation for Medical Informatics (MIE'09)*, Aug. 30 - Sept. 2, 2009, *Stud Health Technol Inform.* 150:987-991.
- IC.16. Kanterakis, A., Moustakis, V., Kafetzopoulos, D., and Potamias G. (2009). Revealing Disease Mechanisms via Coupling Molecular Pathways Scaffolds and Microarrays: A Study on the Wilm's Tumor Disease. *BMIINT: Biomedical Informatics & Intelligent Methods in the Support of Genomic Medicine, AIAI 2009 workshop, CEUR Proceedings*, vol. 475, pp. 85-96, Thessaloniki, Greece, April 24, 2009.
- IC.17. Koumakis, L., Sfakianakis, S., Moustakis, V., and Potamias G. (2009). Discovery of Genotype-to-Phenotype Associations: A Grid-enabled Scientific Workflow Setting. *BMIINT: Biomedical Informatics & Intelligent Methods in the Support of Genomic Medicine, AIAI 2009 workshop, CEUR Proceedings*, vol. 475, pp. 45-56, Thessaloniki, Greece, April 24, 2009.
- IC.18. Tsiliki, G., Kaforou, S., Kapsetaki, M., Potamias G., and Kafetzopoulos, D. (2008). A computational approach to microarray universal reference sample. *IEEE 8th International Conference on Bioinformatics and Bioengineering (BIBE 2008)*, pp. 247-253, Athens, Greece, October 8-10, 2008.

- IC.19. Kalaitzakis, M., Kritsotakis, V., Grangeat, P., Paulus, C., Gerfault, L., Perez, M., Reina, C., Potamias G., Tsiknakis, M., Kafetzopoulos, D., and Binz, Pierre-Alain. (2008). Proteomic based identification of cancer biomarkers: The LOCCANDIA integrated platform. *IEEE 8th International Conference on Bioinformatics and Bioengineering (BIBE 2008)*, pp. 129-135, Athens, Greece, October 8-10, 2008.
- IC.20. Christodoulou, E., Ioannou, M., Kafousi, M., Sanidas, E., Papagiannakis, G., Danilatu, V., Tsiliki, G., Margaritis, T., Kondylakis, H., Manakanatas, D., Koumakis, L., Kanterakis, A., Vassilaros, S., Tsiknakis, M., Analyti, A., Potamias G., et al. (2008). A new gene expression signature related to breast cancer estrogen receptor status. *IEEE 8th International Conference on Bioinformatics and Bioengineering (BIBE 2008)*, pp. 157-163, Athens, Greece, October 8-10, 2008.
- IC.21. Jordan B., Perez-Perez M.M., Ossig R., Kaforou S., Mery E., Brunet-Errard L., Paulus P., Kritsotakis V., Kalaitzakis M., Gerfault L., Reina C., Kafetzopoulos D., Potamias G., Ricoul F., Tsiknakis M., Schnekenburger J., Grangeat P. (2008). LOCCANDIA: Lab-on-Chip Based Protein Profiling for Cancer Diagnosis. *pHealth: International Workshop on Wearable Micro and Nanosystems for Personalised Health*, Valencia, Spain, May 21-23, 2008.
- IC.22. Kanterakis, A., Kafetzopoulos, D., Moustakis, V., and Potamias G. Mining Gene Regulatory Networks and Microarray Data: The MinePath Approach. *18th European Conference on Artificial Intelligence (ECAI'08) Workshop on Bioinformatics, Genomics & Proteomics, an Artificial Intelligence Approach (BIGPAIA)*, Patras, Greece, July 22, 2008.
- IC.23. Kalaitzakis, M., Kritsotakis, V., Kondylakis, H., Potamias G., Tsiknakis, M., and Kafetzopoulos, D. (2008). An Integrated Clinico-Proteomics Information Management and Analysis Platform. *21st IEEE International Symposium on Computer-Based Medical System CBMS 2008*, pp. 218-220, Jyväskylä, Finland, June 17-19, 2008.
- IC.24. Tsiknakis, M., Sfakianakis, S., Potamias G., Zacharioudakis, G., Kafetzopoulos, D. (2007). A semantic Grid Infrastructure Enabling Integrated Access and Knowledge Discovery from Multilevel Data in Post-Genomic Clinical Trials. *15th International Workshops on Conceptual Structures (ICCS 2007)*, Babak Akhgar (ed.), ISBN 978-1-84628-990-3, Springer, Sheffield, UK, July 2007.
- IC.25. Potamias G., et al. (2007). Mining Interesting Clinico-Genomic Associations: The HealthObs Approach. *IFIP International Federation for Information Processing, Artificial Intelligence and Innovations 2007: From Theory to Applications*, Boukis C., Pnevmatikanis L., and Polymenakos L. (eds), vol. 247, pp. 137-145.
- IC.26. Potamias G., et al. (2007). Knowledge Discovery Scientific Workflows in Clinico-Genomics. *19th IEEE International Conference on Tools with Artificial Intelligence (ICTAI'07)*, pp. 91-95.
- IC.27. Moustakis, V., Laine, M.L., Koumakis, L., Potamias G., Zampetakis, L., and Loos, B.G. (2007). Modeling Genetic Susceptibility: a case study in periodontitis. *IDAMAP-2007: Intelligent Data Analysis in bioMedicine And Pharmacology, AIME 07 workshop*, pp. 59-64, Amsterdam, The Netherlands, July 8, 2007.
- IC.28. Tsiknakis, M., Grangeat, P., Binz, P-A., Potamias G., et al. (2007). Functional Specifications of an Integrated Proteomics Information Management and Analysis Platform. *29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS 2007)*, pp. 6065-6069, Lyon, France, August 22-26, 2007.
- IC.29. Tsiknakis, M., Kafetzopoulos, D., Potamias G., Analyti, A., Marias, K., and Manganas, A. (2006). Building a European Biomedical Grid on Cancer: the ACGT Integrated Project. *HealthGRID 2006*, Valencia, Spain, June 7-9, 2006. *Stud Health Technol Inform.* 120: 247-258.
- IC.30. Tsiknakis M., Kafetzopoulos D., Potamias G., Analyti A., Marias K., and Sfakianakis S. (2006). Developing a European Biomedical GRID for post-genomic research on Cancer. *IEEE EMBS Information Technology Applications in Biomedicine (ITAB 2006)*, Ioannina, Greece, October 26-28, 2006.
- IC.31. Potamias G., Antonakaki, D., and Kanterakis, A. (2006). Construction of Gene Correlation Networks and Text Classification via Biomedical Literature Mining. *IEEE EMBS Information Technology Applications in Biomedicine (ITAB 2006)*, October 26-28, 2006.

- IC.32. Potamias G., and Kanterakis A., (2006). DNA promoter Prediction via Feature Selection: The MineProm System. *2nd ADBIS Workshop on Data Mining and Knowledge Discovery (ADMKD2006)*, pp. 109-120, Thessaloniki, Greece, September 6, 2006.
- IC.33. Potamias G., Koumakis, L., and Moustakis, V.S., (2005). Enhancing Web Based Services by Coupling Document Classification with User Profile. *EUROCON 2005 - The International Conference on Computer as a tool*, Vol. 1, pp. 205-208. Belgrade, Serbia and Montenegro, November 21-24, 2005.
- IC.34. Potamias G., Kafetzopoulos, D., and Tsiknakis, T. (2004). Integrated Clinico-Genomics Environment: Design and Operational Specification. *2nd ICICTH International Conference on Information Communication Technologies in Health, session I3: e-Health Services, p.13* Samos Island, Greece, July 8-10, 2004.
- IC.35. Potamias G., and Koumakis, L. (2004). HealthObs: An Integrated System for Mining Clinical XML-formatted Data. *2nd ICICTH International Conference on Information Communication Technologies in Health, session I7: Electronic Data Interchange in Health Environments, p. 15* Samos Island, Greece, July 8-10, 2004. *Journal for Quality of Life Research (JQLR)* 2(1): 145-150.
- IC.36. Potamias G., Koumakis, L., Charissis, G., Moustakis, V., Tsiknakis, M., and Orphanoudakis, S. (2003). Supporting Population Centered Medical Decision Making: Design Recommendations and Preliminary Assessment. *10th International Conference on Human-Computer Interaction (HCI2003), session 185: Semantic Awareness: When Computers Sense what you are Talking About, p. 103*, pp. 795-799, Heraklion, Crete, Greece, June 22-27, 2003.
- IC.37. Potamias G. (2003). Utilizing Genes Functional Classification in Microarray Data Analysis: a Hybrid Clustering Approach, pp. 417-430. *9th Panhellenic Conference in Informatics*, Thessaloniki, Greece, November 21-23, 2003.
- IC.38. Potamias G., and Moustakis V. (2001). Mining Coherence in Time Series Data. *9th International Conference on Human-Computer Interaction, session: News on Agent-based Information Retrieval, p. 37*, pp. 928-932, New Orleans, Louisiana, USA, August 5-10, 2001.
- IC.39. Frossyniotis D., Vrettos S., Vogiatzis D., Stafylopatis A., Constantinopoulos C., Fotiadis D.I., K. Likas, A., Potamias G., Naka, A., Tzimas, T., and Michalis, L.L. (2001). An Intelligent System for the Early Diagnosis of Coronary Artery Disease. *4th International Conference on Neural Networks and Expert Systems in Medicine and Healthcare (NNESMED)*, pp. 238-244, Milos Island, Greece, June 20-22, 2001.
- IC.40. Potamias G, and Dermon C. (2001). Patterning Brain Developmental Events via the Discovery of Time-Series Coherences. *4th International Conference on Neural Networks and Expert Systems in Medicine and Healthcare (NNESMED)*, pp. 281-287, Milos Island, Greece, June 20-22, 2001.
- IC.41. Potamias G., and Moustakis, V. (2001). Knowledge discovery from distributed clinical data sources: the era for internet-based epidemiology. *23rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, vol. 4, pp. 3638-3641, Istanbul, Turkey, October 25-28, 2001.
- IC.42. Potamias G., Papanikolaou E., and Hatzigeorgiou A. (2001). Knowledge-based TDNN architectures for features recognition DNA sequences. *International Joint Conference on Neural Networks (IJCNN'01)*, vol. 4: 2327-2332, Washington DC, USA, July 15-19, 2001.
- IC.43. Potamias G., Tsiknakis M., Katehakis D., Karabela E., Moustakis V., and Orphanoudakis S. (2000). Role-Based Access to Patients Clinical Data: The InterCare Approach in the Region of Crete. *16th Medical Infobahn for Europe Conference (MIE 2000)*, Hannover, Germany, August 27- September 1, 2000. *Stud Health Technol Inform.* 77: 1074-1079.
- IC.44. Morik, K, Potamias G, Moustakis, V and Charissis, G. (1993). Model based learning support to knowledge acquisition: a clinical case study. *4th Conference on Artificial Intelligence in Medicine Europe (AIME93)*, Munich, Germany, October 3-6, 1993. *Stud Health Technol Inform.* 10: 434-439.

## Abstracts, Posters, Presentations

- AP.1. Kanterakis, A., Kartsaki, E., Potamias, G. (2016). MutationInfo: A tool to quick retrieve genomic position from HGVS variants. (Abstract / Poster P16.86). *ESHG 2016* (The European Human Genetics Conference), Barcelona, Spain, May 21-24, 2016
- AP.2. Lakiotaki, K., Kartsaki, E., Kanterakis, A., Katsila, T., Patrinos, G., Potamias, G. (2015). ePGA: an integrated electronic Pharmacogenomics Assistant for Personalized Medicine. (Abstract, Poster PS15.29) *ESHG 2015* (The European Human Genetics Conference), Glasgow, UK, June 6-9, 2015
- AP.3. Lakiotaki, K., Kartsaki, E., Kanterakis, A., Katsila, T., Patrinos, G., Potamias G. (2015). Translating Pharmacogenomics for Personalised Medicine. (Abstract, Poster) *PAGE meeting* (Population Approach Group in Europe), Hersonnisos, Crete Island, Greece, 2-5 June, 2015
- AP.4. Lakiotaki, K., Kartsaki, E., Kanterakis, A., Patrinos, G.P., Potamias, G. (2014). Pharmacogenomics Profiles from 1,092 Human Genomes. (Abstract, Poster). Wellcome Trust conference *1000 Genomes Project and Beyond*, 2014, 24-26 June, Churchill College, Cambridge
- AP.5. Potamias, G., Lakiotaki, K., Kartsaki, E., Kanterakis, A., (2014). Towards Predictive Pharmacogenomics Translation Services. *Workshop on Statistical Methods for Omics Data Integration and Analysis (Smodia 2014)*, November 10-12, 2014, Heraklion, Crete, Greece.
- AP.6. Potamias G. (2014). Towards electronic pharmacogenomic assistance and translation services. *2nd Pharmaceutical Sciences conference*, Patras, Greece, October 9-11, 2014.
- AP.7. Potamias G. (2014). Towards an electronic Pharmacogenomics Assistant (ePGA). *2014 Golden Helix Summer School*, Aegina Island, Greece, September 11-15, 2014.
- AP.8. Koumakis L., Potamias G. (2014). MinePath: Blending Molecular Pathways & Gene Expression Profiles. *Metabolic Series-GR Workshop III - Metabolic and Protein Network Analysis in System Biology*, Patras, Greece, September 18-20, 2014.
- AP.9. Hadjimichael C., Potamias, G., Stratidaki I., Zoumadakis C., Kafetzopoulos D., and Kretsovali A. (2012). Patterning MicroRNA Profiles in the Course of Mouse Embryonic Stem Cell Differentiation: a Graph-theoretic Clustering Approach. *7th Conference of the Hellenic Society for Computational Biology and Bioinformatics*, (HSCBB12), Heraklion, Crete, Greece, October 4-6, 2012.
- AP.10. Zarkadis I., and Potamias G. (2011). Induction of Terminal Complement Component Proteins Evolution Models: An in silico approach. *6th Conference of the Hellenic Society for Computational Biology and Bioinformatics* (HSCBB11), 7-9 October 2011, Patras, Greece & *62nd Panhellenic Conference of the Greek Biochemistry and Molecular Biology Society*, p. 205, Athens, Greece, December 9-11, 2011.
- AP.11. Potamias G., and Kanterakis A. (2010). Revealing disease molecular regulatory mechanisms: Coupling microarrays and gene regulatory networks. *5th Conference of the Hellenic Society for Computational Biology and Bioinformatics* (HSCBB10), Alexandroupolis, Greece, Coober 17-19, 2010, program - session9: Computational Methods and Tools for Biological data Analysis, p. vii, [also in *F1000Prime*, F1000Prime.com/8491956#eval8963054].
- AP.12. Zikopoulos V., Potamias G., and Dermon C. (2011). Discriminant analysis of brain adrenoceptor profiles during adult sex reversal in hermaphrodite teleost fish. *8th World Congress of Neuroscience - IBRO*, Florence, Italy, July 14-18, 2011.
- AP.13. Zikopoulos V., Potamias G., Dermon C.R. (2010). Brain adrenoceptor profiles associate with adult sex reversal in hermaphrodite teleost fish. *EMBL Symposium: Structure and Function of Neural Circuits*. Heidelberg, Germany, September 5-8, 2010.
- AP.14. Kanterakis A., Kafetzopoulos D., Moustakis V., and Potamias G. (2008). Decomposition of Gene Regulatory Networks into Functional Paths and their Matching with Microarray Gene Expression Profiles. *6th European Symposium on Biomedical Engineering*, (ESBME 2008), Chania, Greece, June 19-21, 2008.
- AP.15. Brookes A.J., ..., Potamias G., ... (2008). GEN2PHEN: An international effort towards the universal databasing of gene-disease relationships. *European Human Genetics Conference 2008*, May 31 - June 3, 2008, Barcelona, Spain, *European Journal of Human Genetics* 16(Suppl 2), P08.20, p. 399, May 2008.



- AP.16. Moustakis V., Potamias G., Laine M., Loos B., and Koumakis L. (2008). Linking genetic Susceptibility with clinical findings: a case study in periodontitis. *European Human Genetics Conference 2008*, barcelona, Spain, May 31 - June 3, 2008. *European Journal of Human Genetics* 16(Suppl 2), P06.231, p. 341, May 2008.
- AP.17. Potamias G., et al. (2007). The LOCCANDIA Integrated Clinico-Proteomics Environment. *5th International Conference on Instrumental Methods of Analysis Modern Trends and Applications (IMA07)*, Patras, Greece, 30 Sep.-4 Oct. 2007, p. 3.
- AP.18. Laine M.L., ... Potamias G., and Loos B.G. (2007). Biomedical Informatics in Periodontal Disease Research. *42nd Annual Meeting of IADR-Continental European and Israeli Divisions*, Thessaloniki, Greece, September 26-29, 2007.
- AP.19. Potamias G., Tsiknakis M., Papoutsidis, V., Kanterakis A., Marias K., and Kafetzopoulos D. (2006). Advancing Clinico-genomic Research Trials via Integrated Knowledge Discovery Operations. *Medical Informatics in Europe conference (MIE 2006)*, Maastricht, The Netherlands, August 27-30, 2006.
- AP.20. Sfakianakis S., Chronaki C., Bernstein I., Nrgaard J.R., Katehakis D.G., Potamias G., and Tsiknakis M. (2006). Early experience from HL7 v3 tools, the Pedigree topic, and CDA in the Danish HNPCC Registry. *International HL7 Interoperability Conference (IHIC) 2006*, Cologne, Germany, August 24-25, 2006.
- AP.21. Potamias G., Dermon C. R., Stamatakis A., Moore T., Moss M., Rosene D. L., and Barbas H. (2006). A Feature-based Selection Approach for Patterning Adrenoceptor Changes in Hypertension. *5th Forum on European Neuroscience (FENS 2006)*, Vienna, Austria, July 8-12, 2006.
- AP.22. Kafetzopoulos D., Stathopoulos S., Sanidas E., Vassilaros S., Marias K., Potamias G., and Tsiknakis M. Biomedical informatics as the means for achieving systems biology approaches to understanding and curing cancer. (2005). *HERCMA 2005: Hellenic European Research in Computer Mathematics and its Applications Conference*, Athens, Greece, September 22-24, 2005.
- AP.23. Potamias G. (2005). Mining Distributed and Heterogeneous Clinical Data Sources. *ERCIM News* 60 (special session: Biomedical Informatics), pp. 33-35.
- AP.24. Potamias G., et al. (2005). Breast Cancer and Biomedical Informatics: The PrognChip Project. *IMACS 2005: Computer Science and Artificial Intelligence*, Bioinformatics session (organizer: Casimir Kulikowski), Paris, France, July 11-15, 2005.
- AP.25. Potamias G., et al. (2004). Breast cancer, microarrays and biomedical informatics: The Prognochip Project. *1st International Advanced Research Workshop on In Silico Oncology: Advances and Challenges (IARWISO)*. Sparta, Greece, September 9-11, 2004.
- AP.26. Potamias G., and Dermon C. (2004). Utilizing Genes Functional Classification in CNS Gene Expression Profiling. *ISN 2004: Special Neurochemistry Conference: Changes in Neuronal Gene Expression and CNS Drug Responses*. Avignon, France, May 13-16 May, 2004. *Journal of Neurochemistry* 90(Suppl 1): P17: 138
- AP.27. Potamias G., and Dermon C. (2003). Mining brain developmental Events: Profiling & Modeling protein Synthesis Activity with Clustering Techniques. *6th World Congress of Neuroscience (IBRO)*, Prague, Czech Republic, July 10-15, 2003.
- AP.28. Potamias G. (2003). The Utility of Sequence, Function and Transcriptional Information in Gene Expression Profiling. *EUNITE Workshop on Intelligent Technologies for Gene Expression Based Individualized Medicine*, jena, germany, May 9, 2003.
- AP.29. Hristofis C., Potamias G., Tsiknakis M., Moustakis V., and Orphanoudakis S. (2000). Mining Distributed and Heterogeneous Data Sources: A Project in the Medical Domain. *Machine Learning in the New Information Age*, MLnet workshop, *European Conference of Machine Learning (ECML2000)*, pp. 27-38, Barcelona, Spain, May 30, 2000.
- AP.30. Potamias G., and Moustakis V. (1999). Induction of In-between Classes: Learning vague Concepts. *European Symposium on Intelligent Techniques (ESIT99)*, Session BC-03, Chania, Greece, June 3-4, 1999.

- AP.31. Mavropoulos H., Dounias G., Potamias G. (1999). Advanced statistical analysis of Working Accidents using data mining tools. *Advanced Course in Artificial Intelligence (ACAI99)*, Chania, Greece.
- AP.32. Potamias G. (1997). Linear Programming based Induction (LPI): A Constraint Logic Programming Elaboration. *1st Panhellenic Logic Symposium*, pp. 199-204, Nicosia, Cyprus, July 21-24, 1997.
- AP.33. Englmeier K., Moustakis V., and Potamias G. (1996). Advanced Information Systems Based Information Agents. *International Conference on Applied Ergonomics (ICAE96)*, Istanbul, Turkey, May 21-24, 1996.
- AP.34. Potamias G., Moustakis, V., and Charissis, G. (1996). Interactive Knowledge Base Construction and Maintenance. *Human Computer Interaction meets Machine Learning workshop, International Conference of Machine Learning (ICML96)*, Bari, Italy, July 3, 1996.
- AP.35. Potamias G., Gaga L., Blazadonakis M., and Moustakis V., (1993). Multistrategy learning support to the acquisition of clinical knowledge: methodological issues. *Multi-Strategy Learning, MLnet workshop*, Blanes, Spain, Sept. 1993.
- AP.36. Morik K., Potamias G., Moustakis V., and Charissis G. (1993). Knowledgeable Learning using MOBAL — A Case Study on a Medical Domain. *Real-World Applications of Machine Learning workshop notes*, pp. 1-15, *European Conference on Machine Learning, (ECML93)*, Vienna, Austria.
- AP.37. Moustakis V., Potamias G., (1993). Inductive learning support for decision making. (Extended Abstract). *3rd International Workshop on Artificial Intelligence in Economics and Management (AIEM3)*, Portland, Oregon, USA.
- AP.38. Moustakis V., Potamias G., Gaga L., Blazadonakis M., Vassilakis P., and Charissis G., (1992). Bias identification using inductive learning techniques - a medical case study. *Expert Judgment, Human Error, and Intelligent Systems*, B.G. Silverman (Ed.), *European Conference on Artificial Intelligence (ECAI 1992)*, Vienna, Austria.