

# Evangelos Pafilis, PhD

## Curriculum Vitae



Year of birth: 1978, Nationality: Greek

Web: <http://epafilis.info/>, E-mail: [vagpafilis@gmail.com](mailto:vagpafilis@gmail.com)

 <http://scholar.google.com/scholar?q=evangelos+pafilis>

### Professional Experience

- ▲ **2011 - now: Research Fellow in Bioinformatics – Biodiversity Informatics**  
Institute of Marine Biology, Biotechnology and Aquaculture  
Hellenic Center of Marine Research, Crete, Greece
  - 2013 - now: LifeWatch Greece: *E-Science European research infrastructure for Biodiversity and Ecosystem Research* (EU FP7 e-Infrastructure)
  - 2011 - 2013: MARBIGEN: *Supporting research potential for MARine Biodiversity and GENomics in the Eastern Mediterranean* (EU FP7 REGPOT)
- ▲ **2009 - 2010: Post-doctoral Researcher in Bioinformatics**  
School of Medicine, University of Crete, Greece  
BioTextQuest: *Development of an Integrated Computer System for Text Mining Biomedical Databases* (Cyprus Research Promotion Foundation)

### Education

- ▲ **2004 - 2009: PhD Bioinformatics, Magna cum Laude**  
European Molecular Biology Laboratory (EMBL) – Uni of Heidelberg, Germany  
Thesis: *Web-based data integration and text mining techniques to accelerate biomedical research*, Supervisor: Dr. Reinhard Schneider, University advisor: Prof. Roland Eils  
Funding: EMBL PhD Fellowship
- ▲ **2002 - 2003: MRes Bioinformatics, Distinction**  
University of Glasgow, Scotland, Thesis: *Visualisation Mechanisms supporting Genotype Analysis*, Supervisor: Dr. Ela Hunt, Dept of Computing Science
- ▲ **1998 - 2002: BSc Biology**, University of Crete, Greece, Grade 76.1%

### Honors - Awards, Scientific Challenges

- ▲ **Top ranking:** *A dictionary- and rule-based system for identification of bacteria and habitats in text* by Cook H, Pafilis E, Jensen LJ. (Aug 2016) in **BioNLP-ST 2016 BB3** “cat+ner” Task
- ▲ **Top ranking:** the [EXTRACT](#) tool in **BioCreative V** (Sep 2015) **Interactive Annotation Task**
- ▲ **Encyclopedia of Life - Rubenstein 2013 Fellowship** for the ENVIRONMENTS-EOL project (<http://environments-eol.blogspot.com/>) (March 2013)
- ▲ The **Reflect** system has been piloted at the [Elsevier's flagship Cell journal](#) (Nov 2009)
- ▲ **1st place Award**, the **Reflect** team in: *The Elsevier Grand Challenge: Knowledge Enhancement in the Life Sciences* (\$35000, April 2009)
- ▲ Bio Triangle Project Fellowship to attend the EU-US Training in Marine Bioinformatics (Bremen, Germany, funding from the EU-US Task Force) (June 2012)
- ▲ EMBO Short Term Fellowship (356-2011) to visit the Novo Nordisk Foundation Center for Protein Research in Copenhagen, Denmark (Nov – Dec 2011)



## Publication Overview

Refereed Publications: 26, Citations: 340, H-index: 10 (Google Scholar, 31.October.2016)

*Selected First Author Publications*

- ▲ [Reflect: Augmented Browsing for the Life Scientist](#). **Pafilis E**, O'Donoghue SI, Jensen LJ, Horn H, Kuhn M, *et al.* (2009) **Nature Biotechnology**, 2009, 27, 508-510
- ▲ [EXTRACT: interactive extraction of environment metadata and term suggestion for metagenomic sample annotation](#). **Pafilis E.**, Buttigieg PL., Ferrell B., Pereira E., Schnetzer J., Arvanitidis C., Jensen LJ. (2016). **Database**, 2016, baw005
- ▲ [ENVIRONMENTS and EOL: identification of Environment Ontology terms in text and the annotation of the Encyclopedia of Life](#). **Pafilis E**, Frankild SP, Schnetzer J, Fanini L, Faulwetter S, *et al.* (2015). **Bioinformatics**, 2015, btv045
- ▲ [The SPECIES and ORGANISMS Resources for Fast and Accurate Identification of Taxonomic Names in Text](#). **Pafilis E**, Frankild SP, Fanini L, Faulwetter S, Pavloudi C, *et al.* (2013). **PLoS ONE**, 2013, 8(6): e65390



## Portfolio

- ▲ EXTRACT: <http://extract.hcmr.gr>
- ▲ ENVIRONMENTS: <http://environments.hcmr.gr>
- ▲ ENVIRONMENTS-EOL: <http://environments-eol.blogspot.com/>
- ▲ SEQenv: <https://github.com/xapple/seqenv>
- ▲ Species: <http://species.hcmr.gr>
- ▲ Organisms: <http://organisms.hcmr.gr>
- ▲ Reflect: <http://reflect.ws>, featured in the following scientific-news reports:
  - Literature mining: Speed reading (2010) **News Feature**, **Nature**, 2010, 463, 416-418
  - For I dipped into the future. Rinaldi A. (2010) **EMBO Reports**, 2010, 11, 345 - 349
- ▲ OnTheFly: <http://onthefly.embl.de>
- ▲ BioTextQuest<sup>+</sup>: <http://bioinformatics.med.uoc.gr/biotextquest>

## Selected Invited Talks

- ▲ **Plenary Talk: SPECIES and ENVIRONMENTS Taxonomic name and environment descriptive term identification in text** at **Biocreative IV** (as part of a **DOE-funded Discussion Panel on Metagenomics**, October 2013, Washington DC, US)
- ▲ *HCMR efforts in connecting the two silos: scientific data and documents*. Euromarine Workshop on *Linking Scientific Data and Journal Publications*, Jan 2012 Bremen, Germany
- ▲ *Web-based data integration and text mining to accelerate molecular biology research*. Spanish National Cancer Research Center, February 2011, Madrid, Spain

## Expertise

### Overview

- ▲ 14+ years of Bioinformatics/Computational Biology experience
- ▲ 12+ years in literature mining/integrative biological analysis
- ▲ Strong background on databases, visualization and web-based architectures
- ▲ Emphasis on data-standard compliance and large-scale projects

- ⤴ Highly interested in collaborative “hands-on” data analysis and software development workshops enabling bench-biologist – IT expert cross-talk and teamwork
- ⤴ Adept in managing and operating internationally arranged projects

#### *Computational Biology*

- ⤴ Biodiversity informatics, systems biology, ecosystems biology, metagenomics
- ⤴ linking molecular biology, chemistry, and ecology
- ⤴ sequence analysis, biomedical literature processing
- ⤴ biomedical knowledge network generation
- ⤴ in-depth knowledge of biological databases and data integration platforms

#### *Information Technology*

- ⤴ Text mining (named entity recognition, taxonomy, environment descriptive terms, document similarity, Vector Space Model, document clustering, co-occurrence analysis, automated ontology generation)
- ⤴ Web application development (browser extensions, web 2.0 applications)
- ⤴ Data integration and database development (data standards, requirements capture, data modeling, relational algebra, database indexing, web services, scientific workflows, data exchange)
- ⤴ Data visualization (data clustering, large scale knowledge networks, interactive-graph based visualization, knowledge discovery by visual concept association)

#### *Field-work Skills – Sampling Activity Planning and Coordination*

- ⤴ Metadata-compliant multi-partner sampling designing, planning and carrying out
  - Citizen-science oriented, such as [Crete Island Sampling Day 2016](#)
- ⤴ Soil Sampling, Packaging, Labeling, Shipping
- ⤴ Sediment Sampling in particular lagoon environments

#### *Technical Information Technology Skills*

- ⤴ *Fluent:* Java, Perl, Javascript, HTML, XML, AJAX, REST, Drupal, CGI, BioPERL Java Servlets, JDBC, AXIS, JAX-WS, WSDL, MySQL, Oracle, Microsoft Access
- ⤴ *Experienced:* Clustering algorithms, Python
- ⤴ *Familiar with:* Cytoscape, MATLAB
- ⤴ *Operating Systems:* Administrator: UNIX, MacOS, RedHat, SUSE, CentOS, Windows
- ⤴ *Security:* System Administrator: Content filtering, DDoS prevention, Firewall

### **Collaborations (Projects and Communities)**

Selected community publications:

- ⤴ [The Founding Charter of the Genomic Observatories Network](#). Davies N, Field D, Amaral-Zettler Let al. (2014) **GigaScience**, 3:2
- ⤴ [A decadal view of biodiversity informatics: challenges and priorities](#). Hardisty A, Roberts D, **Biodiversity Informatics Community** (2013). **BMC Ecol.**, 2013, 15;13:16

Involved in:

- ⤴ [Lifewatch](#): E-Science European research infrastructure for Biodiversity and Ecosystem Research (FP7 e-infrastructure)
- ⤴ [Micro B3: Biodiversity, Bioinformatics, Biotechnology](#) (FP7) **Management Committee** and WG2: The analysis of raw data for diversity estimates
- ⤴ [Euromarine: from genes to ecosystems](#) (FP7-Environment) and in particular in WP4: Scientific Data Integration
- ⤴ [ViBRANT: Supporting biodiversity research communities](#) (FP7 e-infrastructure) and in particular in [WP8. Ecological and conservation data mobilisation](#)

- ⤴ [EMBRIC: European Marine Biological Resource Centre](#) (FP7 Capacities) and in particular in WP2: WG3 Omics Technologies

Member of the:

- ⤴ The [Genomics Standards Consortium](#)
- ⤴ [BioCreative](#) Metagenomics Advisory Group
- ⤴ [Rubenstein Fellows](#)
- ⤴ [Genomic Observatories Network, Genomic Standards Consortium \(GSC\)](#)
- ⤴ [Biodiversity Informatics Community](#)
- ⤴ [Biohackathon Consortium](#) of Bioinformatics services providers and application developers
- ⤴ Hellenic Society for Computational Biology and Bioinformatics ([HSCBB](#))
- ⤴ Hellenic Bioinformatics ([HBIO](#))

## Languages

- ⤴ English (Excellent understanding, speaking and writing)
- ⤴ German (Good understanding and speaking, basic writing)
- ⤴ Greek (native speaker)

## Peer Review Activities

- ⤴ Journal reviewer for [BMC Bioinformatics](#), [Database](#), [Frontiers in Systems Physiology](#), [Biodiversity Data Journal](#)

## Peer Reviewed Articles (complete listing)

26. [Optimized R functions for analysis of ecological community data using the R virtual laboratory \(RvLab\)](#). Varsos, C., Patkos, T., Oulas, A., Pavloudi, C., Gougousis, A., *et al.* (2016). **Biodiversity Data Journal** 4: e8357 doi: 10.3897/BDJ.4.e8357
25. [Environmental variability and heavy metal concentrations from five lagoons in the Ionian Sea \(Amvrakikos Gulf, W Greece\)](#). Vasileiadou, K., Pavloudi, C., Kalantzi, I., Apostolaki, E., Chatzigeorgiou, G., *et al.* (2016) **Biodiversity Data Journal** 4: e8233
24. [A dictionary- and rule-based system for identification of bacteria and habitats in text](#). Cook H, **Pafilis E**, Jensen LJ. (2016). **BioNLP 2016 Conference, Bacteria Biotope 3** Proceedings
23. [The environment ontology in 2016: bridging domains with increased scope, semantic density, and interoperability](#). Buttigieg PL, **Pafilis E**, Lewis SE, Schildhauer MP, Walls RL, *et al.* (2016). **J. Biomed. Semantics**, 2016, 7:57.
22. [Overview of the interactive task in BioCreative V](#). Wang Q, Abdul SS, Almeida L, Ananiadou S, Balderas-Martínez YI, *et al.* (2016). **Database**, 2016, baw119
21. [EMODnet Workshop on mechanisms and guidelines to mobilise historical data into biogeographic databases](#). Faulwetter S, **Pafilis E**, Fanini L, Bailly N, Agosti D, *et al.* (2016). **Research Ideas and Outcomes** 2:e9774, doi: 10.3897/rio.2.e9774
20. [Value, but high costs in post-deposition data curation](#). Hoopen ten P, Amid C, Buttigieg PL, **Pafilis E**, Bravakos P, *et al.* (2016). **Database**, 2016, bav126
19. [EXTRACT: interactive extraction of environment metadata and term suggestion for metagenomic sample annotation](#). **Pafilis E**, Buttigieg PL., Ferrell B., Pereira E., Schnetzer J., Arvanitidis C., Jensen LJ. (2016). **Database**, 2016, baw005
18. [ENVIRONMENTS and EOL: identification of Environment Ontology terms in text and the annotation of the Encyclopedia of Life](#). **Pafilis E**, Frankild SP, Schnetzer J, Fanini L, Faulwetter S, *et al.* (2015). **Bioinformatics**, 2015, btv045
17. [BioTextQuest+: A knowledge integration platform for literature mining and concept](#)

- [discovery](#). Papanikolaou N, Pavlopoulos GA, **Pafilis E**, Theodosiou T, Schneider R, *et al.* (2014). **Bioinformatics**, 2014, 30 (22): 3249-3256
16. [The Founding Charter of the Genomic Observatories Network](#). Davies N, Field D, Amaral-Zettler Let al. (2014) **GigaScience**, 2014, 3:2
  15. [Polytraits: A database on biological traits of marine polychaetes](#). Faulwetter S, Markantonatou V, Pavludi C, Papageorgiou N, Keklikoglou L, Chatzinikolaou E, **Pafilis E**, Chatzigeorgiou G, Vasileiadou A, Dailianis T, Fanini L, Koulouri P, Arvanitidis C. (2014) **Biodiversity Data Journal**, 2014, 2: e1024
  14. [Beach parties: a case study on recreational human use of the beach and its effects on mobile arthropod fauna](#). Fanini L, Zampicinini G, **Pafilis E**. (2013) *Ethology Ecology & Evolution*, 2013, 26(1):69-79
  13. [OnTheFly 2.0: a tool for automatic annotation of files and biological information extraction](#). **Pafilis E**, Pavlopoulos GA, Satagopam VP, Papanikolaou N, Horn H, *et al.* (2013) **IEEE International Conference on Bioinformatics and Bioengineering (BIBE13)**, 2013, pp.1,4
  12. [The SPECIES and ORGANISMS Resources for Fast and Accurate Identification of Taxonomic Names in Text](#). **Pafilis E**, Frankild SP, Fanini L, Faulwetter S, Pavludi C, *et al.* (2013). **PLoS ONE**, 2013, 8(6): e65390.
  11. [A decadal view of biodiversity informatics: challenges and priorities](#). Hardisty A, Roberts D, **Biodiversity Informatics Community** (2013). **BMC Ecol.**, 2013, 15;13:16.
  10. [Engaging the broader community in biodiversity research: the concept of the COMBER pilot project for divers in ViBRANT](#). Arvanitidis, C, Faulwetter S, Chatzigeorgiou G, Penev L, Bankí O, Dailianis T, **Pafilis E**, Kouratoras M, Chatzinikolaou E, Fanini L *et al.* (2011). **Zookeys**. 2011, 150:211-219.
  9. [BioTextQuest: a web-based biomedical text mining suite for concept discovery](#). Papanikolaou, N, **Pafilis E**, Nikolaou S, Ouzounis CA, Iliopoulos I, *et al.* (2011). **Bioinformatics**, 2011, 27(23):3327-3328.
  8. [Reflect: Augmented Browsing for the Life Scientist](#). **Pafilis E**, O'Donoghue SI, Jensen LJ, Horn H, Kuhn M, *et al.* (2009) **Nature Biotechnology**, 2009, 27, 508-510
  7. [Reflect: a practical approach to web semantics](#). O'Donoghue SI, Horn H, **Pafilis E**, Haag S, Kuhn M, *et al.* (2010) **Journal of Web Semantics**, 2010, ISSN 1570-8268
  6. [OnTheFly: A Tool for automated document-based text annotation, data linking and network generation](#). Pavlopoulos GA, **Pafilis E**, Kuhn M, Hooper SD, Schneider R. (2009) **Bioinformatics** 2009, Apr 1;25(7):977-8
  5. [The DBCLS BioHackathon: standardization and interoperability for bioinformatics web services and workflows](#). Katayama T, *et al.*, The DBCLS BioHackathon Consortium. (2010) **Journal of Biomedical Semantics**, 2010, 1:8
  4. [Arena3D: Visualization of Biological Networks in 3D](#). Pavlopoulos GA, O'Donoghue SI, Satagopam VP, Soldatos T, **Pafilis E**, *et al.* (2008) **BMC Systems Biology**, 2008, 2:104
  3. [Experience using web services for biological sequence analysis](#). Stockinger H, Attwood T, Chohan SN, Cote R, Cudre-Mauroux P, Falquet L, Fernandes P, Finn RD, Hupponen T, Korpelainen E, Labarga A, Laugraud A, Lima T, **Pafilis E**, Pagni M, Pettifer S, Phan I, Rahman N. (2008) **Briefings in Bioinformatics**, 2008, 9(6):493-505
  2. [Development of SRS.php, a SOAP-based library for data acquisition from integrated biological databases](#). Barbosa-Silva, A., Ortega, J. M., **Pafilis, E.**, Schneider, R. (2007) **Genetics And Molecular Research**, 2007, 6(4):1142-1150
  1. [Index-Driven XML Data Integration to Support Functional Genomics](#). Hunt E, **Pafilis E**, Tulloch I, Wilson J. (2004). **Proceedings of Data Integration in Life Sciences, DILS'04**, Lecture Notes in Computer Science 2994. pp95-109

## Preprints

- ⤴ [Seqenv: linking sequences to environments through text mining](#). Sinclair L, Ijaz UZ, Jensen L, Coolen MJ, Gubry-Rangin C, et al. (2016) PeerJ Preprints 4:e2317v1 [last author publication]
- ⤴ [Real-time tagging of biomedical entities](#). Pafilis, E. and Jensen, L.J. (2016) bioRxiv Preprint

## Book Chapter

- ⤴ *Automated Annotation of Scientific Documents: Increasing Access to Biological Knowledge*. Pafilis, E, Horn H, Brown NP. (2014) [Biological Knowledge Discovery Handbook: Preprocessing, Mining and Postprocessing of Biological Data](#), Wiley:ISBN:978-1-1181-3273-9

## Talks (complete listing, 2011 and onwards)

- ⤴ **Coming up: EXTRACT 2.0: interactive extraction of environmental and biomedical contextual information**. Hellenic Bioinformatics 2016, November 2016, Thessaloniki, Greece
- ⤴ *HCMR/IMBBC: "Compute Data Tools Training Standards"* - ELIXIR-GR Meeting, July 2016, Hellenic Pasteur Institute, Athens, Greece
- ⤴ ***Standards Promoting and Uptake Activities at the Hellenic Centre for Marine Research***. Opening Session, Genomics Standards Consortium 18, June 2016, HCMR, Crete, Greece
- ⤴ *Associating organisms with their environment: automated literature mining and interactive metadata extraction*. Catalogue of Life Team Meeting, Apr 2016, HCMR, Crete, Greece
- ⤴ *The SPECIES 800 corpus*. BLAH2 Hackathon, November 2015, DDBJ, Mishima, Japan (DDBJ Travel award received)
- ⤴ *LifeWatchGreece*, 1st CreteIDEA Workshop, October 2015, HCMR, Crete, Greece
- ⤴ *Associating organisms with their environment: automated literature mining and interactive metadata extraction*. 13th IZCEGAR, October 2015, NHMC, Heraklion Crete, Greece
- ⤴ ***EXTRACT: Interactive extraction of environment metadata and term suggestion for metagenomic sample annotation***. BioCreative V, Sept 2015, Sevilla, Spain (DOE funded)
- ⤴ *Associating Organisms With Their Environment: Automated Mining, Assisted Curation and Exploratory Visualization Approaches*. EMODNET/EUBON Workshop, June 2015, HCMR, Crete, Greece
- ⤴ *Text Mining and Environmental Metadata Suggestion*. GSC 17 - Genomic Standards Consortium Workshop (May 2015, Joint Genome Institute, Walnut Creek, CA, US)
- ⤴ [Identification of Environment Ontology terms in text and the annotation of the Encyclopedia of Life at TDWG 2014](#), the annual conference of the [Biodiversity Information Standards](#) community (October 2014, Jönköping, Sweden)
- ⤴ *ENVIRONMENTS: Environment Ontology (EnvO) term identification in text*. GSC 16 - Genomic Standards Consortium Workshop (April 2014, Oxford, UK)
- ⤴ *SEQenv: annotating sequences with environments*. EU COST Action ES1103 workshop: Bioinformatics meets microbial ecology (BMME) (December 2013, Prague, Czech Republic)
- ⤴ *Identification of Environment Ontology terms in Text and Annotation of Biodiversity and Genomics Information* at TDWG2013 - Semantics for Biodiversity Symposium - Session 3: "Interoperability with genomic and ecological semantics" (November 2013, Florence, Italy)
- ⤴ **Plenary Talk: SPECIES and ENVIRONMENTS Taxonomic name and environment descriptive term identification in text** at **Biocreative IV** (as part of a **DOE-funded Discussion Panel on Metagenomics**, October 2013, Washington DC, US)
- ⤴ *ENVIRONMENTS: Identification of Environment Descriptive Terms in Text*. GSC 15 - Genomic Standards Consortium Workshop (April 2013, Washington DC, US)
- ⤴ *Mining the Scientific Literature for Biodiversity Knowledge*. MARBIGEN EU Evaluation Committee Meeting (Feb 2013, HCMR, Heraklio, Greece)
- ⤴ *SPECIES: Organism Name Identification in the Scientific Literature*.

HSCBB October 2012, Heraklio, Greece

- ▲ *Connecting Scientific Data and Documents incl. HCMR Text Mining Efforts.* ViBRANT Technical Workshop, April 2012, Sofia, Bulgaria
- ▲ *OnTheFly 2.0: A Service to automatically annotate files and extract biological information.* HSCBB October 2011, Patras, Greece
- ▲ *HCMR efforts in connecting the two silos: scientific data and documents.* Euromarine Workshop on *Linking Scientific Data and Journal Publications*, Jan 2012 Bremen, Germany
- ▲ *Web-based data integration and text mining to accelerate molecular biology research.* Spanish National Cancer Research Center, February 2011, Madrid, Spain

## Given Courses – Workshop Organization

- ▲ **Teaching:** “Introduction to Programming and the Unix Operating System for Biologists” in the [MSc Bioinformatics, Medicine School](#), University of Crete
- ▲ **Co-organized:** [Genomics Standards Consortium 18 \(GSC18\) – Crete Island Sampling Day](#), June 2016, HCMR, Crete, Greece
- ▲ **Co-organized:** EMODNET/EUBON Workshop: Legacy Biodiversity Literature Mobilization, June 2015, HCMR, Crete, Greece
- ▲ **Lecture:** [Text Mining and Environmental Metadata Suggestion](#) at the "ENA/EMG Sample Record Annotation Workshop (Jamboree)" (Dec 2014, EBI, Hinxton, UK)
- ▲ **Organized:** *From Signals to Environmentally Tagged Sequences III.* Workshop (Hackathon) Funding: COST Action ES1103, 22 – 25 Sept 2014, HCMR, Crete, Greece
- ▲ **Lecture:** *Metadata and Standardization, OSD - a Powerful Example* (at the MicroB3 Summer School: From sampling to analyzing microbial diversity & function, 2 June 2014, HCMR, Crete, Greece)
- ▲ **Co-Organized:** [MicroB3 Summer School: From sampling to analyzing microbial diversity & function](#), 26 May – 6 June 2014, HCMR, Crete, Greece
- ▲ **Co-Organized:** [Bluehackathon 2013](#) workshop, 10 – 13 June 2013, HCMR, Crete, Greece
- ▲ **Organized:** *From Signals to Environmentally Tagged Sequences II.* Workshop (Hackathon) Funding: COST Action ES1103, 10 – 13 June 2013, HCMR, Crete, Greece
- ▲ **Organized:** *From Signals to Environmentally Tagged Sequences.* Workshop (Hackathon) Funding: COST Action ES1103, 27 – 29 September 2012, HCMR, Crete, Greece
- ▲ **Lecture:** [A Short Introduction to Unix for Bioinformatics](#) as part of [Introductory course to the Principles of Coalescent Theory and Applications](#), Feb. 2012, HCMR, Crete, Greece
- ▲ **Lecture Series:** [Introduction to Programming Using Python](#), 18 hrs course introducing basic programming concepts to biologists, June 2011, HCMR, Crete, Greece
- ▲ **Lecture:** [Automated annotation of scientific data and documents](#) in:
  - [Mining The Biomedical Literature Workshop](#), University of Cyprus, March 2011, Nicosia, Cyprus
  - MSc Molecular Biology – Biomedicine, Uni of Crete, Jan 2011, Heraklio, Crete, Greece
- ▲ **Lecture:** *Document clustering of Medline abstracts for concept discovery in molecular biology in:*
  - [Mining The Biomedical Literature Workshop](#), University of Cyprus, March 2011, Nicosia, Cyprus
  - MSc Molecular Biology – Biomedicine, Uni of Crete, Jan 2011, Heraklio, Crete, Greece
- ▲ **Lecture:** *Reflect and OnTheFly: Automatic annotation of biological entities in web pages and scientific documents* in:
  - MSc in Bioinformatics, University of Athens, May 2009, Athens, Greece
- ▲ **Lecture:** *Reflect: Automatic annotation of biological entities in web pages* in:
  - MSc in Bioinformatics, University of Athens, May 2009, Athens, Greece
  - Exploring Protein Modular Architecture course, EMBL, Feb 2008, Heidelberg, Germany

## Career Development Training

### *Computational Biology Courses Attended*

- ⤴ EU-US Training in Marine Bioinformatics (Bremen, Germany, June 2012)
- ⤴ Introduction to Systems Biology (HCMR Crete, Nov 2011)
- ⤴ Exploration and Analysis of Protein-Protein Interactions (ECCB, Sept 2008)
- ⤴ Semantic Mining in Bio-Medicine (SMBM, Apr 2006)
- ⤴ eProtein Scientific Meeting and Workshop (Apr 2006)
- ⤴ Scientific Training at Bioalma (<http://bioalma.com/>), Spain (Sept 2005)
- ⤴ EBI PhD Student Bioinformatics course (Oct 2005)
- ⤴ EMBL PhD Training course (Autumn 2004)

### *Information Technology Courses Attended*

- ⤴ Developing Enterprise Java Applications with Spring and Hibernate (May 2008)

### *Teacher's Courses Attended*

- ⤴ Train The Trainer (May 2008)
- ⤴ Effective Writing (Dec 2007)

## Non-Scientific Training

- ⤴ Psychological support help-line assistant (Oct 2009 – Feb 2010)  
Advising and assisting young people to overcome stress and anxiety

## Referees

### **Dr. Reinhard Schneider**

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### **Dr. Christos Arvanitidis**

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Web: <http://www.marbigen.org/users/christos-arvanitidis>

### **Dr. Lars Juhl Jensen**

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2200 København N, Blegdamsvej 3B, Denmark

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Web: [http://www.cpr.ku.dk/staff/staff\\_all/?id=343848&vis=medarbejder](http://www.cpr.ku.dk/staff/staff_all/?id=343848&vis=medarbejder)

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