



## Call for the expression of interest for a Post-Doc Position for ERC Consolidator Grant

---

The MensXMachina (MXM) research Group of the Computer Science Department of the University of Crete invites outstanding scholars to express their interest for a contractual position in our ERC Consolidator Grant that kicked off January 1<sup>st</sup>, 2015 and will run for the next 3 years. The grant is entitled “**CAUSALPATH: Next Generation Causal Analysis: Inspired by the Induction of Biological Pathways from Cytometry Data**”. The Principal Investigator of the grant is Prof. Ioannis Tsamardinos. ERC grants are prestigious European research programs that support scientific excellence and provide research autonomy and flexibility. The grant has several ambitious goals and directions: (a) basic research on causal discovery, causal analysis, and causal modeling, (b) application on de novo inducing signal pathways from mass cytometry data, and (c) design of automated tools for causal discovery and signal pathways. CAUSALPATH is coordinated by our group in the Computer Science Department of University of Crete in collaboration with the Computational Medicine Unit in Karolinska Institutet.

<b>Expression of interest closing date:</b>	<i>September 30, 2017</i>
<b>Preferred starting date:</b>	<i>October, 2017 (later starting date is possible)</i>
<b>Duration:</b>	<i>1-2 years</i>

### Regarding the Group

Our group is a **highly multi-disciplinary** (including researchers with applied math, computer science, engineering, biology and signal processing backgrounds) and **multi-national** team of about 15 undergraduates, graduate students, post-docs and researchers. We focus on data analysis and machine learning with an emphasis on biomedical data and problems inspired by biological research. We maintain numerous national and international collaborations with biology and medical groups in synergistic, funded research programs. In addition, we have experience with commercialization of our novel methods. Our group has attracted more than 3M euro in last 5 years in European, Greek national, and international research grants.

### Job Description

We are looking for bright, ambitious, energetic, hard-working people to join our effort and lead fundamental breakthroughs in the field. All applicants should have a strong algorithmic and mathematical background, a strong publication record in the field, and experience with designing and executing research plans; they should be able to work well as parts of a multi-disciplinary team and have excellent communication skills in English. All applicants should have a Ph.D. in a related field, such as computer science, engineering, statistics, applied mathematics or bioinformatics. Experience with analysis of biological data and analysis of high dimensional data is a plus.

We are primarily interested in the following fields: Machine Learning, Statistics or Data Analysis in general. The applicant must have a Ph.D. in one of these research directions and experience with algorithms, methods and analysis based on at least one of the following machine learning, data mining, (computational) statistics, pattern recognition, data analysis and data science in general. Experience with analysis of biological data and analysis of high dimensional data is a plus.

While the ERC grant provides funding for up to 5 years, our group is continuously and actively seeking research funding to secure the contracts of all hires. We welcome application from international applicants. Fluency in English is necessary; no knowledge of Greek is required.



## Requirements

- Ph.D. in computer science, engineering, statistics, applied mathematics or bioinformatics or related field
- Proven research record in machine learning, statistics, or data analysis
- Two or more excellent recommendation contacts from established researchers in the field
- Excellent communication skills in English
- Strong algorithmic and/or mathematical background
- Greek males applying for the positions should have either fulfilled their military obligations or have secured postponement until the end of the contract.

### *Additional Requirements*

- Proven research record in Data Fusion, Relational Learning, Representation Learning, Dynamics Systems modeling and learning in Big Data settings or related advanced data analysis techniques
- Proven record in scientific programming
- Experience with analysis of biological data and analysis of high dimensional data (particularly with analysis of cytometry data)
- Experience with research grant proposal writing and execution of funded research grants

The contracts should ideally start on **October 2017** or within a few months. Later start dates are possible if agreed up with the Principal Investigator Prof. Tsamardinos.

## Location

University of Crete is located near Heraklion, the 4<sup>th</sup> largest city in Greece on the coast of the island of Crete. The location is ideal for people who enjoy sunny weather and aquatic activities, or are attracted by the history and archeological sites of the island. The Computer Science Department, who will host the research activities, is sited in new buildings and research facilities completed in 2013.

## Procedure

Interested candidates should send by email to [mensxmachina@gmail.com](mailto:mensxmachina@gmail.com) the following material:

- Curriculum Vitae
- Statement of research qualifications and interests
- At least three reference contacts

Formal procedures will be announced by the University of Crete after the expression of interest closing date.

## Further information contacts

*Ioannis Tsamardinos*  
Associate Professor,  
Computer Science Dep., University of Crete  
[tsamard.it@gmail.com](mailto:tsamard.it@gmail.com)

*Georgios Papoutsoglou*  
Post-Doc Researcher,  
Computer Science Dep., University of Crete  
[geo.papoutsoglou@gmail.com](mailto:geo.papoutsoglou@gmail.com)

For information on the MXM Group and the grant:

[www.mensxmachina.org](http://www.mensxmachina.org), [www.mensxmachina.org/causalpath](http://www.mensxmachina.org/causalpath)