

<b>Job Offer Announcement</b>	<b>Vacancy Code 131_CRI_TCP</b>
Job title	Post doc in Modeling transcriptional control programs at a genome wide scale
Job description	<p>A Post-Doc position under the supervision of Dr. Kristof Engelen is available in the Integrative Genomics unit, Computational Biology Centre of the Research and Innovation Centre.</p> <p>The project aims at creating computational models for studying genome wide transcriptional mechanisms and the role of gene regulatory networks in driving cellular behavior. It is situated in ongoing and planned initiatives within the Computational Biology Department: the creation of 'expression atlases' for apple and grapevine on the one hand, and the curation and annotation of cellular pathways into a standardized representation on the other. The ultimate goal is to obtain a mechanistic understanding of how certain metabolic or signaling pathways are involved in controlling genome-wide expression in varying biological conditions (such as environment, treatments, tissues development stages, varieties, ...) and prioritize knowledge hiatuses for further wetlab research</p>
Duties / Tasks	<ul style="list-style-type: none"> <li>- Build top-down systems biology models that can identify and quantify the condition dependent control of genome-wide expression coordination, predict novel interactions, and identify gaps of knowledge;</li> <li>- Further develop mapping rules for our formalized, mathematically interpretable condition annotation and associated ontology;</li> <li>- Supervise the application of developed methodologies on apple and grapevine data</li> </ul>
Keywords	Systems biology, top-down modeling, biological networks, data integration, transcriptomics, gene expression atlas, compendium
Contract type and length, Level	Project collaboration contract, 36 months (Contratto di collaborazione coordinata e continuativa a progetto)
Languages knowledge <i>from Common European Framework of Reference for Languages (CEFR)</i>	English (B1) or higher. Candidates should be able to express themselves fluently in English, and enough experience in academic writing to be able to draft papers and project grants independently
IT knowledge	The candidate should be comfortable working in a Unix/Linux environment, have a sound knowledge of databases (preferentially MySQL), and have scientific programming/coding experience (e.g. in R, Perl, Python, MATLAB, Java, C/C++, etc.)
Required title to join the selection	PhD in Computational Biology, Bioinformatics, Computer Science, Genomics, (Molecular) Biology, Natural Sciences, or equivalent.
Required experience	<ul style="list-style-type: none"> <li>- PhD with experience in computational biology (preferentially top-down systems biology) and bioinformatics;</li> <li>- Experience in statistics and data-mining;</li> <li>- Experience with expression data analysis and interpretation;</li> <li>- Experience with large-scale biological networks;</li> </ul>

	- Experience with plants would be an advantage
Psychosocial skills	Enthusiasm for research questions and the approach addressed in the project; strong motivation for pursuing collaborative and independent research, a good track record in this field; capacity to work in a multi-disciplinary research team; commitment to group activity in terms of publications and ideas
Supervisor	Kristof Engelen
Summary of entry requirements	1. PhD in Computational Biology, Bioinformatics, Computer Science, Genomics, (Molecular) Biology, Natural Sciences, or equivalent.

### **Application**

To apply for the position the applicants should send a message mentioning in the subject the recruiting code (131\_CRI\_TCP) to the email account **curricula@fmach.it** including the following items:

1. an up-to-date CV (Please add the following phrase to your CV otherwise your application will not be considered: *I consent to the use of my personal data in accordance with the provisions of decree 196/2003*). Save your file in this way: **Surname Name\_cv.doc** or **.pdf**;
2. the filled application form available online *131\_CRI\_TCP\_Application*. Save your file in this way: *Surname Name\_af.doc*;

### **Deadline**

The deadline for the submission of the applications is **September 30th, 2013**.

### **Short list candidates**

FEM will short-list the applicants. We will notify the short-list candidates for an interview in San Michele or for a phone interview. The other candidates will be notified at the end of the recruiting procedure.

### **Information about CRI**

The Research and Innovation Centre of the foundation (CRI), with more than 300 employees, has a mission to promote and enhance the Trentino land-based economy through studies and innovation that improve agricultural and environment products and enhance the quality and nutritional value of food products. It sustains the region's environmental resources through development and promotion of low-impact agricultural practices, study and preservation of biodiversity, and characterisation of alpine and subalpine ecosystems. The centre operates fully integrated research programs and state-of-the-art platform technologies to deliver innovative solutions and competitive products for our stakeholders and end-user communities.

### **Equal opportunities**

The position is open to both genders, Law n. 903, 9/12/1977, art. 1. The policy and practice of the Edmund Mach Foundation require that all staff are offered equal opportunities within employment.

### **Data treatment**

All data supplied by applicants will be used only for the purposes of determining their suitability for the position and will be held in accordance with the principles of the Personal Data Protection Code, Legislative Decree no. 196 of 30 June 2003. By sending the Cv and application, the candidate consent and authorize the Foundation to the use of his/her personal data.