

# **JOB PROFILE**

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Job Announcement		Vacancy Code 110_CRI_MNDM
Job title	Research Scientist in molecular network dynamics modeling	
Job description	We are seeking a computational systems biologist to join our team and collaborate on a variety of projects. The candidate will use network analysis, mathematical modeling and game theory to model cell to cell interaction and molecular network dynamics in yeasts and higher eukaryotes	
Duties / Tasks	<ul> <li>Model development using multiple frameworks – stochastic models, ordinary differential equations and spatial modeling (PDE and/or particle based);</li> <li>Network analysis using modern programming languages (Python, R);</li> <li>Bioinformatics analysis – interacting with existing databases (ENSEMBL, PDB, STRING, GO);</li> <li>Interaction with experimental collaborators;</li> <li>Parameter optimization of models to fit experimental data.</li> </ul>	
Keywords	Systems biology, Network analysis, Mathematical modelling, Optimization	
Contract type and length, Level	CCPL FEM contract, Researchers 4th band, 36 months	
Languages knowledge	Fluent in spoken and written English	
IT knowledge	Experience using a high level language (Ruby, Python, R) for analysis. Open source experience a plus. Knowledge of UNIX systems	
Type of title	PhD in Biology / Statistics / Bioinformatics / Applied Mathematics required	
Required experience	The ideal candidate will have a strong mathematical background, good knowledge of fission and budding yeast biology as well as the ability to work independently. Two papers as first author in journals with impact factor > 5 is a minimal requirement for this post. Papers as last author count as a plus. A minimum of three year period as a post doc is also required. For candidates coming from more theoretical fields such as Applied Mathematics or Physics, extensive knowledge of yeast biology is required. For candidates coming from a Biology background, we require excellent analytical and programming experience.	
Psychosocial skills	Ability to present highly technical material to experimental collaborators in a clear and concise manner. Ability to work both independently and in large teams consisting of people from multiple backgrounds. A desire to constantly learn new techniques, as dictated by the biological problem	
Supervisor	Csikasz-Nagy, Attila	



## Application

To apply for the position the applicants should send a message mentioning in the subject the code (110\_CRI\_MNDM) to the email account curricula[AT]fmach.it including the following items:

- 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 110\_CRI\_MNDM\_Application. Save your file in this way: Surname Name\_af.doc;

The deadline for the submission of the applications is the 31st January 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 250 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.