



Job opportunity	Vacancy Code 012_BGM_VG
Job title	Four research fellowships leading to PhD degree in international recognized Universities
Job description	<p>1. Epigenetics in fruit trees. This research project will target the study of epigenetic (DNA and histone methylation) and post-transcriptional (small RNAs) gene regulation in grape and apple during fruit development as well as upon biotic and abiotic stresses.</p> <p>2. Molecular and genetic study of fruit ripening and apple quality. The candidate will address the study of fruit ripening and apple quality using different approaches such as monitoring ripening-related phenotypes, exploring candidate genes and haplotypes variability, and investigating changes in gene expression at single gene and whole-transcriptome levels.</p> <p>3. Understanding resistance and susceptibility mechanism to fire blight in Rosaceae. Fire blight is the most destructive apple disease. Goals of this project are the characterization of the molecular response of apple to fire blight using a genomic approach (eg. next-generation sequencing of transcriptome) and the development of new strategies for marker-assisted molecular breeding.</p> <p>4. Phylogenomics of apple and grape varieties. The investigation of intra-specific relationships using classical phylogenetic methods is a challenging task because of scarcity of characters. The research will be carried out by amassing and analyzing large sequence data sets, including alignments of whole chloroplast genomes and of long range PCR products from nuclear genome.</p>
Keywords	Apple, Grape, <i>Rosaceae</i> , Fire blight, QTL, Microarray, Gene profiling, Resistant genes, Genetic mapping, Epigenetics, RNA silencing, Phylogenomics, Bioinformatics, Translational Genomics
Position details	The Mach Foundation is funding four research fellowships leading to a PhD degree in collaboration with European Universities. The research projects will be carried out at the research centre of the Edmund Mach Foundation. FEM supports the possibility to link this grant with a PhD course in internationally recognized Universities. The grant is for three years with a possible extension of one year. Registration costs for the PhD course will be covered by FEM
Languages knowledge	English written and spoken
IT knowledge	Excel, Word, statistic software. For the bioinformatics position (nr. 4), knowledge of Linux OS and shell/PERL programming is preferable
Required title to join the selection	Five-year university degree (bachelor + master)



Speciality	Agricultural Science, Biology, Biotechnology or equivalent
Required experience	Basics of molecular biology, genetics, and/or plant pathology, proved lab experience in molecular biology (DNA/RNA isolation, PCR amplification, fragment analysis by electrophoresis separation)
Starting month	October 2008 or in accordance with the start of the doctorate courses
Supervisor	1) Dr. Azeddine Si Ammour 2) Dr. Fabrizio Costa 3) Dr. Mickael Malnoy 4) Dr. Vadim Goremykin Head of the Department: Dr. Riccardo Velasco

Application

To apply for the position the applicants should send to the email account **risorseumane.centroricerca[AT]iasma.it** the following:

1. the filled application form 012_BGM_VG available online;
2. 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) including a list of publications.

The deadline for the submission of the applications is **30th September 2008** – we will accept speculative applications after this date.

Short list candidates

Short-listed candidates will be invited for interview.

Information about Edmund Mach Foundation

The Research Centre of the Edmund Mach Foundation (San Michele all'Adige, Trento, Italy) is one of the most important for horticultural research in Europe. Research includes improvement of crop productions of grapevine and apple. During 2007 the Research Centre obtained the genome sequence of grape and a similar effort in apple is expected to be completed during 2008. Following these achievements, we started an interdisciplinary translational genomics programme aimed at the fully exploitation of the knowledge generated by the two genome sequencing projects. The successful candidates will join an already established team of scientists working with state-of-the-art genomic facilities, in an international English-spoken research environment.

Terms and conditions

The grant will be 20.000,00.= Euro / yearly (gross). The student will have the right for the lunch at the Foundation canteen for a reduced fee. Help will be provided to find accommodation. Registration costs for the PhD course will be covered by FEM.

Equal opportunities

The position is open to both gender, 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 post and will be held in accordance with the principles of the Personal Data Protection Code, Legislative Decree no. 196 of 30 June 2003.