



UNIVERSITÀ DEGLI STUDI DI MILANO

Area Affari Istituzionali, Internazionali e Formazione

Divisione Formazione Universitaria e Formazione Permanente

Div: FUIP - ET

IL RETTORE

- visto l'art. 4 della Legge 3 luglio 1998, n. 210;
- visto il decreto ministeriale 30 aprile 1999, n. 224 "Regolamento recante norme in materia di dottorato di ricerca";
- visto lo Statuto dell'Università degli Studi di Milano, emanato con decreto rettorale 28 maggio 1996 e successive modificazioni;
- visto il Regolamento d'Ateneo in materia di dottorato di ricerca, emanato con decreto rettorale 9 ottobre 2006 e successive modificazioni;
- vista la deliberazione adottata dal Senato Accademico nella seduta dell'11 maggio 2004, con la quale sono state emanate le direttive per l'accesso e la frequenza ai corsi di dottorato di ricerca attivati presso l'Ateneo dei ricercatori partecipanti ai programmi di mobilità previsti nell'ambito del Programma Quadro di Ricerca e Sviluppo Tecnologico dell'Unione Europea;
- viste le deliberazioni adottate dal Senato Accademico e dal Consiglio di Amministrazione rispettivamente nelle sedute del 25 maggio 2010 e 29 giugno 2010;
- vista la deliberazione adottata dal Consiglio direttivo della Scuola di dottorato in Scienze biologiche e molecolari nella riunione del 20 gennaio 2011

DECRETA

è indetta presso l'Università degli Studi di Milano una selezione per l'ammissione alla Scuola di dottorato in Scienze biologiche e molecolari di un ricercatore partecipante al programma di mobilità FP7 Marie Curie Initial Training Network (ITN) "Yeast biodiversity as a source of innovations in food and health" (Cornucopia) con le modalità definite nell'avviso allegato al presente decreto, di cui costituisce parte integrante.

Milano, 15 aprile 2011

IL RETTORE
(Enrico Decleva)
Firmato Gian Paolo Massetto

Reg. n. 0273384 del 20.04.2011

Early stage researchers -PhD positions- and 2 Experienced researchers -Post Doc positions- within the Marie Curie Initial Training Network (ITN) CORNUCOPIA.

Cornucopia is the acronym for the EU Marie Curie ITN: "Yeast biodiversity as a source of innovations in food and health". The Network is coordinated by Lund University, Sweden and the participating institutions are as follows. In brackets positions available are given:

- Lund University, Sweden (2 Ph.D.-students)
- Copenhagen University, Denmark (1 Ph.D.)
- Flanders Institute of Biotechnology, Leuven, Belgium (2 Ph.D.)
- University of Milan, Italy (1 Ph.D.)
- Institute of Physiology, Prague, Czech Republic (1 Ph.D.)
- CBS Fungal Biodiversity Centre, Utrecht, The Netherlands (1 Ph.D.)
- Spanish National Research Council, Valencia (1 Ph.D.)
- Carlsberg A/S, Copenhagen, Denmark (1 PhD; 1 Post Doc)
- Christian Hansen A/S, Hoersholm, Denmark (1 Ph.D.)
- NIZO, Ede, The Netherlands (1 Post Doc)

For the employed 11 Marie Curie early stage fellows the Cornucopia Consortium will organize academic training in the form of a research project within the scope of the Cornucopia research focus (see below), consortium courses and workshops, short visits at different member institutions as well as institutional post-graduate courses, with the objective to gain a Ph.D. degree. For the employed 2 Marie Curie postdoctoral Fellows the Cornucopia Consortium will organize academic training in the form of a research project within the scope of the Cornucopia research focus, consortium courses and workshops, short visits at different member institutions as well as institutional post-graduate courses, with the objective to promote their career within biological sciences and related industry. For all Marie Curie Fellows EU restrictions regarding mobility apply. Applicants for the Ph.D. positions must hold a M.Sc. degree or equivalent, and for the Post Doc positions a Ph.D. degree or equivalent. The previously obtained degrees should be in the area of Biological Sciences, Chemistry and Chemical Engineering, Medical Sciences or equivalent. The Ph.D. applicants should have less than 4 years of research experience and the Post Doc candidates should be in the possession of a Doctoral degree and be within their first five years of research experience.

We seek talented, motivated, enthusiastic, creative and mobile young scientists with a strong commitment to research. Excellent communication skills, both oral and written, are important. Candidates should seek further information on the provided contacts for each consortium partner, see below.

Project summary

Cornucopia will train a new generation of young scientists focusing on less studied yeasts with interesting traits, which could be applied in the food and health sectors. Yeasts are a divergent group of fungi that predominantly exist as unicellular organisms. The baker's yeast *Saccharomyces cerevisiae* is by far the best known because of its role in producing beverages, baking and recombinant drugs, such as insulin. *S. cerevisiae* is also the main model for the analysis of common features of all eukaryotic cells, and has been used in pioneering the development of several molecular biology, genomics and post-genomic tools. However, the yeast kingdom includes more than 1.500 other species that display a variety of unusual characteristics, and play an important role in their natural environments, but have so far been only poorly studied. These yeasts represent a large untapped potential to develop novel food and health related processes and products. We will make use of thousands strains available within Cornucopia to screen, using a variety of microbiological, analytical chemistry and bioinformatics techniques, for traits of interest to industry. such as ethanol-, acid- and osmo-tolerance, aromatic and off-flavor compounds and probiotic properties. Our young researchers will develop novel species-specific molecular, genetic and post-genomic tools to find out which genes determine the superior traits. They will "domesticate" new isolates so that they can be easily handled in the lab, and develop scale-up cultivations for applied purposes. We will benefit from yeast biodiversity and open new avenues within fundamental and applied research. Cornucopia, consists of seven leading yeast academic laboratories and three leading European industry partners, will provide a unique environment to develop strong academia and industry oriented careers, in-depth

training in major experimental technologies used in yeast research and the industrial application of innovative ideas.

Further requirements

Applications should contain the following:

- letter of motivation
- CV
- List of publications
- Letters of reference from former supervisors

The 3-year Ph.D. position **at the University of Milan** is open to non-Italian candidates who are citizens of the European Union or of Associated States. The applicants must be within their first 4 years of research activity. A researcher who has already obtained a Ph.D. degree is not eligible. According to the FP7 Marie-Curie Initial Training Networks funding guidelines of the EC, the candidate must not have resided or carried out their main activities (work, studies, etc) in Italy for more than 12 months in the 3 years immediately prior to the date of the PhD work.

The candidate will be enrolled in a Ph.D. program in the Ph.D. School in Biomolecular Science of the University of Milan. In particular the research activity will be focused to investigate carbon metabolism in nonconventional yeast species in relation to extreme physiological traits and aroma characteristics, and development of fermentation processes. Applicants should have experience with microbial cultivation and molecular biology methods. Experience with yeast fermentation is an advantage

To apply, candidates should send their CV by mail to Concetta Compagno at concetta.compagno@unimi.it until **30th June 2011**.