Marie Skłodowska-Curie Post-doc Positions in UNISI/AOUS 2016:
"Expression of Interest" for hosting Marie Skłodowska-Curie Fellows

This template should be used by Professor/Doctor interested in hosting post-doctoral fellows within the Marie Skłodowska-Curie fellowship programme.

•Short Description of the Project idea

Title: Phylogenetic atlas of Neogene planktonic Foraminifera of Mediterranean area.

The project has the aims to provide a database of planktonic Foraminifera of Neogene in the Mediterranean area. Foraminifera are a phylum of marine protozoans, have a made of calcium carbonate shell, living in all environments. The importance of their fossils in biostratigraphy, paleoenvironment and paleoclimatological studies and their spread in most marine sedimentary rocks allows to consider the most studied group of fossils.

The principal steps will be:

1 - to select specimens from planktonic Foraminifera contained in samples archive in the Department of Physical Sciences, Earth and Environment (DSFTA), University of Siena (Italy) and to yeld a specific collection based on bio-chronostratigraphic data;

2 - to provide a database of the selected foraminiferal species with literature library contained specific references on taxonomic and biostratigraphic data to update continuously; the DB should became available online to the scientific community;

3 - to produce a photographic atlas contained 2D and 3D images of the collection where the entire Neogene planktonic Foraminifera are present, illustrated and supported by 3D models.

The database project will also exploited for evolutionary lineage studies of planktonic Foraminifera of Mediterranean plankton in Neogene.

•DEPARTMENT/LABORATORY ***(Describe briefly the department/laboratory, where the researcher will be employed, including the research team expertise)***

The Department of Physical Sciences, Earth and Environment (DSFTA) of University of Siena (Italy) is a structure with a high profile in scientific research and education. It spans in a wide range of disciplines and develops innovative and multi-disciplinary research activities.
Within the Department the palaeontology group mainly deals of Neogene-Quaternary Foraminifera and calcareous nannofossils, considering both the systematic and the stratigraphic, palaeoecological and palaeoclimatic applications. The studies were developed through the following lines of research:

-Neogene high resolution calcareous plankton stratigraphy, integrating data with magnetostratigraphy and isotopic stratigraphy from Mediterranean and extramediterranean areas, in order to resolve bio-chronostratigraphic problems;
-cyclostratigraphy/astrochronology of Neogene-Quaternary pelagic deposits, integrating quantitative calcareous plankton data to those derived from physic-chemical analysis (stable isotopes, magnetic properties, geochemical properties, etc.);
-reconstruction of the Neogene climate of Mediterranean and oceanic areas using calcareus plankton quantitative data;
-biostratigraphy and bio-geochemistry of pelagic successions of sub-Antarctic areas and applications aimed to the middle Miocene reconstruction of climate evolution and dynamics of the ice sheet;
-reconstruction of depositional environments, palaeogeography and tectonic evolution of the Neogene – Quaternary of the eastern edge of the Northern Apennines and the western-central Corsica;
-sedimentary evolution and palaeogeography of the Oligocene-Quaternary of the Maltese Archipelago,Tremiti islands and the Salento Peninsula, also realizing geological mapping;
-high resolution stratigraphy of the Mediterranean Messinian successions, both of evaporitic marine and fluvial-lacustrine environment, and correlations with oceanic sequences.

•Position, scientific requirements (es. n of publications), topic, discipline*:

*Please tick: (according to scientific subject areas, defined by MSCA)

Life Sciences

Natural Sciences

Engineering Sciences

Chemistry

• DESCRIPTION OF THE SUPERVISOR (max. 200 words)/Contact person: (name and e-mail address)/

Luca Maria Foresi is Professor at the DSFTA of Siena University. His scientific activity regards mainly paleontology and stratigraphy in the interval from 23 Ma (Lower Miocene) to the Present. The research focused on the study of Foraminifera, applied on sediments of the Mediterranean and oceanic areas.
The main activities are:

•micropaleontology of Foraminifera for the interval Neogene - Recent;
•high resolution biostratigraphy, biochronology and cyclostratigraphy / astrochronology for the interval Miocene - Recent;
•reconstruction of depositional environments and paleogeography of some areas of the Mediterranean Basin during the Neogene;
•biostratigraphic, paleoceanographic and paleoclimatic evolution of the Southern Ocean in the Middle Miocene.
He is in the Committee on Teaching for the specialistic degree course in Geology, tutor of degree thesis and member of the College of Professors of the School of PhD in "Earth Sciences " and had many courses in paleontological disciplines.
He participated at the "International School on Planktonic Foraminifera" (2005 and 2007) held at the University of Perugia, as a lecturer and expert.
Starting from January 2013, he is a "Correspondent member" of the Subcommission on Neogene Stratigraphy.

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Previous Related Projects / Research Experience

National Coordinator: National Research Program in Antarctica (PNRA) 2004-2006: Climate Change, paleoceanography of the Southern Ocean (southern sector of the Indian Ocean) and fluctuations in the East Antarctic ice sheet during the middle Miocene, derived from analysis of sediments of Kerguelen Plateau, Antarctica.
Director of paleontological excavations for the project: Excavations and research at a cave of Cala di Biagio – Pianosa Island (Livorno)- research concessions (2012-2013) of the Ministry of Heritage and Cultural Activities.
Local Coordinator: Research Program of Considerable National Interest (PRIN) 2012 - The " GSSP " (Global Stratigraphic Section and Point) of the Burdigalian Stage: the missing piece of the Neogene geological time scale.

• **SPECIFIC REQUIREMENTS/PREFERENCES** *(Describe the specific requirements/preferences for the MSC fellow if necessary for the development/implementation of the project eg. required language, degree field, research experience, etc.)*

For the development of the project we seek candidates with PhD degree in planktonic foraminiferal micropaleontology for post-doctoral researcher position, with at least 5 international papers on Neogene planktonic Foraminifera.

Language: English.

*Please consider that the preparation of a Marie Skłodowska-Curie proposal requires some time.

**Please consider that the preparation of a Marie Skłodowska-Curie proposal requires some time. Fellow and supervisor have to agree on a project and training opportunities for the fellow. If you want to extend your expression of interest to the third deadline in 2016, just leave this column open.