We are seeking a candidate with a PhD degree in Earth or Physical Sciences for a joint application to the Marie Curie Individual Fellowships Programme of the European Union (Marie Curie Programme website: http://cordis.europa.eu/fp7/people/home_en.html).

This programme provides fellowships for European (Intra-European Fellowships) and international (Incoming International Fellowships) researchers in a European country different from where they developed their recent work. Applications are submitted jointly between the candidate and the host institution.

The fellowship would provide a gross salary in the approximate range €100,000-60,000/year, depending on experience, plus mobility (relocation, family, etc.), travel and career exploratory allowances, as well as research funds. The research project would have a duration of 2 years. Fellows can apply for a Reintegration Grant to return to their own country at the end of their fellowship.

The next call will probably open in March 2011 and the deadline will be in August 2011.

Three fellows have been hosted and one more will be hosted starting this year, within this European Programme:

1) 2004-2005. Mechanism of smectite kaolinization via kaolinite-smectite (Dudek et al., 2006, American Mineralogist 91, 159; Cuadros & Dudek, 2006, Clays and Clay Minerals 54, 1; Dudek et al., 2007, American Mineralogist 92, 179; Cuadros & Wing-Dudek, 2007, Clay Minerals 42, 181; Cuadros et al., 2009, Clays and Clay Minerals 57, 742).

2) 2005-2007. Smectite dehydration (structure and kinetics) and the onset of smectite illitization (Ferrage et al., 2007, American Mineralogist 92, 994; Ferrage et al., 2007, American Mineralogist 92, 1007; Ferrage et al., 2011, American Mineralogist 96, 207).

3) 2009-2011. Water chemistry and microbial activity influence on clay formation. In progress.

4) 2011-2013. Fe- and Mg-rich clays from submarine hydrothermal systems as a proxy for the Martian clays of similar composition.

THE PROJECT
Clay minerals have been found on Mars of various ages and corresponding to different genetic environments. Our group is now engaged in the investigation of the processes that generated ancient Fe/Mg-rich clays (see project 4 above), which involves collaboration with European and American colleagues (University of Sofia, Bulgaria, and IFREMER, France; SETI Institute and NASA-ARC, USA; among others).

The proposed project will investigate clay minerals and related phases from acid environments to gain insight into (1) the actual mineral composition of the kaolinite-montmorillonite-hydrated silica deposits found in relatively recent Mars settings and (2) the processes that produced them. The study will involve collaboration with the University of Huelva (Spain) and build on those already taking place or developing in the previous Mars-related project. Thus, the proposed project is interdisciplinary and will involve international collaboration.

THE MINERALOGY DEPARTMENT AT THE NATURAL HISTORY MUSEUM
Our Department is a very dynamic environment, committed to high-quality research and recognized as such worldwide. The Department is equipped with complete up-to-date mineral and chemical analysis facilities (http://www.nhm.ac.uk/research-curation/science-facilities/analytical-imaging/). The Natural History Museum is one of the European Union Large Scale Research Facilities.

CONTACT
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