



## SALTGIANT ETN – Early Stage Researcher in stratigraphy and micropaleontology of the Gibraltar area – ESR 1

<b>Title</b>	<b>Late Miocene-Early Pliocene offshore onshore sedimentary records in the vicinity of Gibraltar</b>
<b>Duration</b>	36 months
<b>Expected start date</b>	October 2018
<b>Host Institution</b>	University of Salamanca ( <u>Doctoral degree to be awarded by the Univ. of Salamanca</u> )
<b>Primary Supervisor(s)</b>	Francisco J. Sierra
<b>Objectives</b>	<p>To understand the evolution of the Strait of Gibraltar during the formation of the MSC by studying the sedimentary successions on both sides of the strait. It has been traditionally considered that the Gibraltar strait only opened at the Miocene-Pliocene boundary, causing the flooding of the Mediterranean. However, recent advances in stratigraphic research in the North Betic and South Riffian corridors suggest these gateways were already closed before gypsum and salt deposition in the Messinian. ESR1 will focus on the Gibraltar Strait and the potential role it played on the Atlantic-Mediterranean water exchange during the late Miocene. This project is based on boreholes already drilled in the Gulf of Cadiz and Guadalquivir, offshore Morocco and the Alboran Sea as well as outcrops near Gibraltar and the Gulf of Cadiz. These sites form a transect from the Atlantic to the Mediterranean along the Strait of Gibraltar along which ESR1 will carry out micropaleontologic, sedimentary, geochemical and paleoceanographic studies aimed at reconstructing changes in the paleobathymetry and paleoenvironment along the Gibraltar Strait.</p>
<b>Expected results</b>	A geological reconstruction of the evolution of the Gibraltar Strait during the Late Miocene-Early Pliocene.
<b>Specific requirements</b>	Completed MSc or Diploma degree in Geology, Earth Sciences, or related fields Basic knowledge in micropaleontology, biostratigraphy, basin analysis, field geology, stratigraphy.
<b>Planned secondments</b>	2 months in POGESA (Spain) under the supervision of Dr Santiago Ledesma. The ESR will be trained on the interpretation of seismic and log profiles from the Guadalquivir, Alboran and Gulf of Cadiz basins. 2) two months of stay in the CSIC Barcelona under the supervision of Dr. Garcia Castellanos for training on the geodynamics of the Gibraltar Arch, providing the necessary tools to explain the evolution of the sedimentary records at both sides of Gibraltar along the Miocene Pliocene boundary, and on backstripping techniques.
Provided by SALTGIANT partners to ESRs; duration 1-3 month each	
<b>Keywords</b>	Field work, micropaleontology, stratigraphy, benthic and planktic foraminifers, stable isotopes, analysis of well logs, backstripping.
<b>Application</b>	Send application via: <a href="http://www.ipgp.fr/saltgiant">www.ipgp.fr/saltgiant</a>
<b>For further information</b>	Contact primary supervisors: <a href="mailto:sierra@usal.es">sierra@usal.es</a>