





PROJECT TITLE	PhleBDIS: The emergence and spread of Phlebotomine sandfly-borne diseases: new challenges and possible threats – Refa IF/01302/201
BRIEF DESCRIPTION	The emergence of sandfly-borne diseases (leishmaniases and phleboviruses) is a potential threat to humans and animals worldwide. Albeit <i>Leishmania infantum</i> still represents the main risk for humans in Europe, there is an elevated threat for the introduction and spread of non-endemic species due to climate changes, tourism and migration (Middle East, Africa). Phleboviruses other than those usually associated with the Mediterranean region (eg Toscana), have recently been detected in Algeria, France, Spain and Tunisia.
OBJECTIVES	To characterize the frequency and genetic variability of emerging viral and protozoan agents transmitted by sandflies. Detection of <i>Leishmania</i> and <i>Phlebovirus</i> in sandflies and domestic animals will be initially done by <i>in vitro</i> isolation followed by molecular methodologies.
IMPLEMENTION	Sand flies will be collected during sand fly activity for 2-3 consecutive years and biological, climatic and environmental factors data will be registered. After morphological identification, they will be tested for the detection and isolation of both <i>Leishmania</i> and <i>Phlebovirus</i> Further, the presence of <i>Leishmania</i> and Phleboviruses will also be evaluated in vertebrate hosts by means of serological, parasite isolation and molecular tools. Molecular characterization of isolated microorganisms and phylogenetic-based analyses of the obtained sequence data will be carried out using a Bayesian approach.
FUNDING AGENCY	Fundação para a Ciência e Tecnologia (FCT)
DURATION	2017-2019
PRINCIPAL INVESTIGATOR	Carla Maia (PI)
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