



PROJECT TITLE	Carbon monoxide guided shuttles (COGSs) to fight Rheumatoid Arthritis – Refª. PTDC/QEQ-MED/1902/2014
BRIEF DESCRIPTION	It has been establishing that carbon monoxide behaves as a regulatory molecule at pathophysiological concentrations providing therapeutic effects in many cellular and biological processes even when applied exogenously. It's therapeutic potential has been demonstrated in animal models of vascular diseases, inflammatory diseases, transplantation and other indications. However, the translation of this potential into real, practical carbon monoxide based therapy faces many hurdles and is still unrealized. This project focus on the design, preparation and study of a new type of prodrugs – CO Guided Shuttles – that are capable of transporting and delivering CO for the treatment of Rheumatoid Arthritis.
OBJECTIVES	To create carbon monoxide containing target specific nanoagents – COGS – using gold nanoparticles; to characterize the mode of action of the particles; to test the efficacy of the particles in <i>in vitro</i> , <i>in vivo</i> and <i>ex vivo</i> Rheumatoid Arthritis models.
IMPLEMENTATION	The main objective is to create target specific agents that can release CO in a controlled and site-specific manner, which we called carbon monoxide guided shuttles (COGS).
FUNDING AGENCY	Fundação para a Ciência e Tecnologia (FCT)
DURATION	2016-2019
PRINCIPAL INVESTIGATOR	Teresa Santos-Silva (PI) / Associação para a Inovação e Desenvolvimento da FCT Fernando Cardoso (GHTM/IHMT)
RESEARCH TEAM / INSTITUTION	Associação para a Inovação e Desenvolvimento, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal (Coordinator Institution): Teresa Santos-Silva; Instituto de Higiene e Medicina Tropical/ Global Health and Tropical Medicine, Portugal: Fernando Cardoso; Instituto de Medicina Molecular, Faculdade de Medicina, Universidade de Lisboa, Portugal: Rita Cascão; UCIBIO – Requimte, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal: Maria João Romão; TechoPhage, SA., Portugal: João Eurico Fonseca;



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