

FAPESP Process #: Proc-FAPESP: 13/07937-8

RIDC Redox processes in biomedicine- Redoxoma.

Project: Spectroscopy of redox imbalance induced by UVA and VIS radiation on XPC fibroblasts and melanocytes

Research Area: Biochemistry

Co-Principal Investigators: Paolo Di Mascio and Mauricio S. Baptista

Institution: Biochemistry Department, Chemistry Institute - Universidade de Sao Paulo

Closing date for applications: 05/31/2016

**Abstract:** Protection of human skin against sun exposition is a complex issue that involves ambivalent aspects of the interaction of light with tissues. Both UVA and visible radiation causes redox imbalance, which leads to damage to organelles and mitochondrial and genomic DNA. Neither the chromophores involved in light absorption in this wavelength region nor the reactive intermediates generated are well known. In this project we will use cellular models with super-expressed natural chromophores or mimetic of these to be internalized by endocytosis in conjunction with time resolved spectroscopy/microscopy equipment to identify the intracellular localization of chromophores and the reactive intermediaries.

**Candidate's requirements:** experience with fluorescence spectroscopy time resolved, confocal microscopy and cellular biochemistry.

**Selection Process:** Based on the analysis of CV and letters of recommendation.

**Documents for application:** Letter justifying interest for the project, cv, copy of doctorate certificate, recommendation letters.

**Note:** *There is subsidy for accommodation and transportation to the non-Brazilian selected candidate who lives currently abroad.*

**Send application to:** Tsai Araujo - Email: admcepid@iq.usp.br