

Marta M. Machado

Full Name: Marta Monteiro Maia Machado

Birth Date: 08/02/1988

Dual Citizenship: Portuguese and Brazilian

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RESEARCH EXPERIENCE

- 11/2013 – Present
Research assistant & Lab-technician Instituto de Medicina Molecular (IMM), Lisboa, Portugal Miguel Prudêncio Lab
“Towards malaria eradication. A novel approach for multi-targeting the parasite’s life cycle” *PTDC/SAU-FAR/118459/2010*
Research supervisor: Dr. Miguel Prudêncio
- 11/2011 to 10/2013
Research assistant Instituto de Higiene e Medicina Tropical
Unidade de Parasitologia Médica/ Centro de Malária e outras doenças Tropicais (CMDT)
“Targeting hemozoin crystal structure: a rational approach to the design of novel antimalarials” *PTDC/SAU-FAR/114864/2009*
Research supervisor: Dr. Fátima Nogueira
- 09/2011 to 10/2011
Visiting research assistant Universidade Federal de São Paulo (UNIFESP), Brazil
“*In vitro* enzymatic assay for screening Deubiquitinating enzymes (DUB) inhibitors”
Research supervisor: Dr. Marcus Gazzarini
- 02/2011 to 09/2011
Research assistant Instituto de Higiene e Medicina Tropical
UEI Malária/ Centro de Malária e outras doenças Tropicais (CMDT)
“Genetics of accelerated acquisition of drug resistance to multiple drugs (ARMD) in malaria parasites: dynamics and fitness studies” *PTDC/BIA-MIC/65861/2006*.
Research supervisor: Prof Dr. Virgílio E. do Rosário and Dr. Dinora Lopes
- 02/2010 to 07/2010
Research assistant Instituto de Higiene e Medicina Tropical
UEI Malária/ Centro de Malária e outras doenças Tropicais (CMDT)

(in the context of the “Evaluation of antiplasmodial activity of extracts and constituents from Lic. curriculum) *Ampelozizyphus amazonicus*”
Research supervisor: Prof Dr. Virgilio E. do Rosário and Dr. Dinora Lopes

EDUCATION

Set/2006 – Jan/2011 Escola Superior de Tecnologia da Saúde de Lisboa, Lisbon, Portugal
Lic. Pharmacy

OTHER ACADEMIC

TRAINING

May 2013 Egas Moniz - Cooperativa de Ensino Superior CRL, Lisbon, Portugal
Seminar “Applications of Electron Microscopy to Biomedicine”

June 2012 Faculdade de Farmácia da Universidade de Lisboa, Lisbon, Portugal
Workshop “Medicinal Chemistry & Malaria Workshop”

June 2012 Instituto de Higiene e Medicina Tropical, Lisbon, Portugal
Course “Animal experimentation”

October 2008/ March 2009 Escola Superior de Tecnologia da Saúde de Lisboa, Lisbon, Portugal
Course “Methods of Inquiry- Theoretical Assumptions and Empirical Procedures”

SKILLS & COMPETENCES

Technical & Methodologies **Molecular biology:** Training in RNA and DNA methods (RNA/DNA isolation, PCR and Real Time PCR);

Cell and tissue culture: Maintenance of *P.falciparum* and *HepG2* cultures;

In vitro cell culture based, receptor-ligand interaction based and enzyme based assays: use of fluorometric and spectrophotometric detection technologies. (Sybr Green, MTT assay, hemozoin polymerization/ β -haematin formation);

Target Identification: Studies directed towards target identification and mechanism of action of anti-parasitic compounds. Use of fluorescence microscopy and fluorimetric assays to study cell markers, cell cycle and programmed cell death;

Animal Handling and In-vivo studies: *In vivo* maintenance of *P. berghei* in mice and *in vivo* antimalarial assays for anti-malarial drug discovery using *Plasmodium berghei*–*Anopheles stephensi* model;

Entomology: Insect dissection; insectarium maintenance (*Anopheles stephensi*).

Computing Proficiency in Windows Microsoft Office™ tools (Word™, Excel™ and PowerPoint™); Good command of GraphPad Prism software™ v5.0 for data analysis; Familiar with Image J software.

Language Portuguese (mother language)
English (fluent)
French (elementary understanding)

ADDITIONAL SKILLS & INFORMATION

Communication skills- dissemination of research results through presentations at national and international conferences.

Leadership – I have supported the training of several undergraduated and graduated internships in Malaria and Vector Biology.

PEER REVIEWED RESEARCH ARTICLES

Paulo A, Figueiras M, **Machado M**, Charneira C, Lavrado J, Santos SA, Lopes D, Gut J, Rosenthal PJ, Nogueira F, Moreira R (2014).

“Bis-alkylamine indolo[3,2-b]quinolines as hemozoin ligands: implications for antimalarial cytostatic and cytotoxic activities”. J Med Chem. 2014 Mar 27. [Epub ahead of print]

Gomes A, Pérez B, Albuquerque I, **Machado M**, Prudêncio M, Nogueira F, Teixeira C, Gomes P (2014).

“N-cinnamoylation of antimalarial classics: quinacrine analogues with decreased toxicity and dual-stage activity”. ChemMedChem. 2014 Feb;9(2):305-10. doi: 10.1002/cmdc.201300459.

Neto Z, **Machado M**, Lindeza A, do Rosário V, Gazarini M, Lopes D (2013).

“Treatment of Plasmodium chabaudi Parasites with Curcumin in Combination with Antimalarial Drugs: Drug Interactions and Implications on the Ubiquitin/Proteasome System”. Journal of Parasitology Research, 2013, vol.2013, pp.1-11.

A Silva J, Ramos A, **Machado M**, de Moura D, Neto Z, Canto-Cavalheiro M, Figueiredo P, do Rosário V, Amaral AC, Lopes, D (2011).

“A review of antimalarial plants used in traditional medicine in communities in Portuguese-Speaking countries: Brazil, Mozambique, Cape Verde, Guinea-Bissau, São Tomé and Príncipe and Angola”. Mem Inst Oswaldo Cruz, 2011, Vol. 106, pp.142-158.

SCIENTIFIC COMMUNICATIONS

September 2012 Paulo A, João Lavrado, Catarina Charneira, Sofia A. Santos, Filipa Quintela, **Marta Machado**, Dinora Lopes, Virgílio do Rosário, Jiri Gut, Philip J. Rosenthal, Rui Moreira.

Poster

“Bis-alkylamine quindolone derivatives: structure-antimalarial relationships”. Abstract for XXIInd International Symposium on Medicinal Chemistry, European Federation for Medicinal Chemistry, Berlin, Germany, P059.

July 2012 **Marta Machado**, Ana Colaço, Sílvia Lino, Ricardo Serrão Santos, Dinora Lopes.

Oral Communication

“From Azorean sea to new antiparasitic drugs”. *Conhecer o Mar dos Açores II – Fórum científico de apoio á decisão*, Horta-Faial, Azores, Portugal.

June 2012 **Marta Machado**, Ana Sofia Rodrigues, Virgílio E do Rosário, Jefferson Rocha, Dinora Lopes.
Poster

“Evaluation of antimalarial activity of extracts and compounds obtained from *Ampelozizyphus Amazonicus* DUCKE”. *Colóquio Internacional Cabo Verde e Guiné Bissau: Percursos do Saber e da Ciência*, Lisboa, Portugal.

June 2011 Maria Rebelo, Claudia Sousa, **Marta Machado**, Dinora Lopes, Telma Lopes, Rui Gardner, Rosangela Frita, Thomas Hanscheid.
Poster

“Pigmento Malárico: Um outro olhar sobre *Plasmodium* spp.”. IV Congresso Pandemias Na Era da Globalização. Coimbra, Portugal.

June 2011 **Marta Machado**, Zoraima Neto, Karine Le Roche, Virgílio do Rosário, Dinora Lopes.
Oral Communication

“Characterization of De-ubiquitinating enzymes in *Plasmodium* spp.” 3rd meeting of Plataforma Ibérica de Malária, Lisbon, Portugal.

September 2010 **Marta Machado**, Dominique do Carmo, Marilene Cavalheiro, Virgílio do Rosário, Jefferson Rocha, Dinora Lopes.
Oral Communication

“Estudo da actividade antimalárica de extractos/fracções de *Ampelozizyphus amazonicus*”. XIV Congresso Português de Parasitologia, Porto, Portugal.

September 2010 Zoraima Neto, **Marta Machado**, Paula Figueiredo, Ana Afonso, Virgílio do Rosário, Karine Le Roch e Dinora Lopes.
Oral Communication

“Susceptibilidade *in vitro* do parasita *Plasmodium falciparum* aos inibidores dos enzimas da via da ubiquitinação”. XIV Congresso Português de Parasitologia, Porto, Portugal.

July 2010 Zoraima Neto, **Marta Machado**, Paula Figueiredo, Ana Afonso, Virgílio do Rosário, Karine Le Roch e Dinora Lopes 2010.
Oral Communication

“Partial characterisation of a putative *Plasmodium falciparum* ubiquitin carboxyl hydrolase enzyme (PFUBCH)” *CIÊNCIA 2010 – Encontro com a Ciência e a Tecnologia em Portugal*. Centro de Congressos de Lisboa, Lisbon, Portugal