

CURRICULUM VITAE
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NAME Miguel Che Parreira Soares

OFFICE ADDRESS Instituto Gulbenkian de Ciência
Rua da Quinta Grande, 6, 2780-156, Oeiras,
Portugal.
Phone: 351-21-4464520
Fax: 351-21-4407970
Email: mpsoares@igc.gulbenkian.pt
Web page: <http://www.igc.gulbenkian.pt/research/unit/43>

HOME ADDRESS Travessa do Alcaide, 12, 1 D^{to}, 1200-13 Lisboa, Portugal

CITIZENSHIP Belgium

PLACE OF BIRTH Uccle, Belgium

DATE OF BIRTH 2nd of February, 1968



EDUCATION:

1990	BS, Biology	University of Louvain, Belgium
1994	MS, Cellular Biology	University of Louvain, Belgium
1995	Ph.D. Science	University of Louvain, Belgium

POSITIONS AND EMPLOYMENT

2004- Principal Investigator, “Instituto Gulbenkian de Ciencia”, Oeiras, Portugal.

2004- Invited Professor at Lisbon Medical School, “Universidade de Lisboa”, Portugal.

2003-4 Lecturer, Harvard Medical School, Boston, MA, and USA.

1998-4 Instructor in Surgery, Harvard Medical School, Boston, MA, USA.

1995-8 Research Fellow, Harvard Medical School, Boston, MA, USA.

1995-04 Staff Ph.D. Beth Israel Deaconess Medical Center, Boston, MA, USA.

INTERNATIONAL PRIZES/AWARDS/ACADEMY MEMBERSHIPS.

2011 Roche Organ Transplantation Research Foundation (ROTRF) Recognition Prize – Recognizing Excellence in Organ Transplantation Research (<http://www.rotrf.org/>).

2010 Designated among the “Ten personalities of 2010” by the national Portuguese daily newspaper Publico. (<http://www.publico.pt/>).

2010 “Seeds of Science” Prize by “Ciencia Hoje” Portugal. (<http://www.cienciahoje.pt>).

2009 Basic Science Prize awarded by the “Sociedade de Ciências Médicas de Lisboa”, Pfizer Prize for Basic Science, Portugal.

2008 NEDAI research prize in auto-immunity, awarded by the Portuguese Society of Internal Medicine (SPMI), sponsored by Schering-Plough Laboratories.

2004 International Prize of Investigation CESPUP “Cooperativa de Ensino Superior Politécnico e Universitário”, Portugal.

2000 “Harvard Medical School Scholars in Medicine” Fellowship.

1990-4 Ph.D., Fellowship from the Belgium Institute for industrial and agricultural investigation (IRSIA).

MEMBERSHIPS TO ADVISORY OR EDITORIALS BOARDS.

- 2011-12 Member of jury Panel for the 2011 and 212 Pulido Valente Foundation, Science Prize (<http://www.fpulidovalente.org>)
- 2009- Member of the Scientific Council for Life & Health Sciences (Portuguese Research Council), “Fundação para a Ciência e Tecnologia”.
- 2007-11 Member of the scientific committee of the european working group of immune mediated inflammatory diseases (<http://www.ewimid.com/content/welcome>).
- 2005-7 Basic Science Committee of European Society of Organ Transplantation (ESOT)(<http://www.esot.org/Default.aspx>).
- 2003-5 Editorial Board of Transplant International (The official Journal of the European Society of Organ Transplantation).
- 2000-4 Member of the “International Transplant Society”.

ORGANIZATION OF INTERNATIONAL CONFERENCES.

- 2013 International consulting committee of the 11th world congress on inflammation and of the XXXVIII Congress of the Brazilian society of immunology, September 21 - 25, 2013, Natal, Brazil.
- 2012 Member of the scientific organizing committee of the international meeting on heme oxygenases and related enzymes, 28th May to 1st June 2012, John McIntyre Conference Centre, Edinburgh, UK
- 2011 Member of the international scientific committee of Bioiron 2011, the 4th congress of the international bioiron society (IBIS). May 22-26, Vancouver, BC, Canada.
- 2010 Co-workshop chair “Instituto Gulbenkian de Ciência Workshop on Tolerance versus resistance to infection”, October 18th-20th, Arrábida, Portugal.
- 2009 Co-workshop chair: “4th European Workshop on Immune mediated inflammatory diseases”. November 18th-20th. Cascais, Portugal.
- 2008 Local organizer of the Recent Advances in Pattern Recognition | Toll2008 Meeting, September 24-27, 2008. Cascais, Portugal.
- 2006 Local organizer of the 2nd European Society of Hematology “Club du globule rouge et du fer”- Euroconference on disorders of iron homeostasis, erythrocytes and erythropiesis Chairs: C. Beaumont, C. Brugnara, Ph. Beris, M. Cazzola. November 10-12, 2006. Cascais, Portugal

MAJOR RESEARCH INTERESTS

We aim at understanding further the cellular and molecular mechanisms regulating inflammation and immunity. We do so by defining and characterizing evolutionary conserved stress-responsive genes that confer tissue damage control and as such are required for the re-establishment of homeostasis in the context of a wide range of inflammatory and/or immune conditions. These stress-responsive genes include heme oxygenase-1 (HO-1), a heme catabolizing enzyme that produces labile iron, biliverdin and carbon monoxide (CO). We focused a significant part of our previous work on CO, a cytoprotective gasotransmitter with a myriad of biologic effects that appear to be essential to re-establish homeostasis in the context of inflammatory and or immune responses. More recently we start addressing the relative contribution of ferritin heavy chain (induced by labile iron) and bilirubin (produced by the conversion of biliverdin into bilirubin) to the salutary effects of HO-1. We are also addressing other evolutionary conserved stress-responsive pathways regulating tissue damage control irrespectively of HO-1.

MAJOR ORIGINAL CONTRIBUTIONS INCLUDE:

- That transplanted organs can express “protective genes”, i.e. heme oxygenase-1 that are essential to prevent their rejection (*Nature Medicine*, 1998; 4, 91-8).
- That carbon monoxide (CO), the gasotransmitter produced via heme catabolism by heme oxygenase-1, acts in a cytoprotective (*J. Exp. Med.*, 2001, 192, 1015-25) and anti-inflammatory (*Nature Medicine*, 2000, 6, 4, 422-428) manner.
- That CO can be used therapeutically to prevent the progression of a wide range of immune mediated inflammatory conditions, including the rejection of transplanted organs (*J. Immunol*, 2001, 166, 4185-4194, *Nature Medicine*, 2003, 9, 183-190), arteriosclerosis (*Nature Medicine*, 2003, 9, 183-190), ischemia & reperfusion injury (*The FASEB Journal*. 2004; 18:771-772), autoimmune neuroinflammation (*J. Clin. Invest.* 2007, 117, 438-447) as well as severe forms of malaria (*Nature Medicine*, 2007, 13: 703-10 and *Proc. Natl. Acad. Sci. USA*. 2009; 106, 37:15837-42).
- That the protective effects of CO rely on the inhibition of heme release from hemoproteins, thereby avoiding the deleterious effects of free heme (*Nature Medicine*, 2007, 13:703-10 and *Annu. Rev. Pharmacol. Toxicol.* 2010. 50:323–54).
- That heme oxygenase-1 supports the survival of an infected host independently of its pathogen load, providing a molecular basis for host tolerance against *Plasmodium* (*Nature Medicine*, 2007, 13: 703-10 and *Proc. Natl. Acad. Sci. USA*. 2009, 106; 37: 15837-42) and polymicrobial (*Science TM*, 2010. 2: 51) infections.
- That sickle hemoglobin confers tolerance to *Plasmodium* infection via induction of the HO-1 system (*Cell*, 2011, Vol. 145, Issue 3, 398-409, 29).
- That controlling of iron metabolism, such as afforded by the ferritin heavy chain gene, is essential to confer tolerance to infection, sustaining host survival independently of its pathogen load.

NARRATIVE REPORT OF RESEARCH, TEACHING AND CLINICAL CONTRIBUTIONS

While at the Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, USA (1995-2004) we have demonstrated that expression of heme oxygenase-1 (HO-1) in a transplanted organ can prevent its rejection. This finding changed in many ways our perception of graft rejection, revealing that a transplanted organ can prevent its own rejection. We found that CO, a product of HO-1 activity, prevents the rejection of transplanted organs. This gasotransmitter can be used therapeutically to suppress graft rejection, a concept currently tested clinically. After joining the Instituto Gulbenkian de Ciência in Portugal (2004-to date), we discovered that HO-1 has an unusually broad healing function over many other pathologic conditions, besides organ transplantation. These include arteriosclerosis, autoimmune and infectious diseases. We identified CO as a central by-product of HO-1 activity accounting for its protective effects and found that this gaseous molecule can be used therapeutically to suppress the progression of these pathologic conditions. We then aimed at understanding further the mechanism(s) via which CO mitigates these diseases. Other than modulating signaling transduction pathways conferring cytoprotective and anti-inflammatory effects, the salutary effects of CO act via a general and simple molecular mechanism that neutralizes the damaging effect of free heme. Namely, when exposed to oxidative stress, proteins that bind non-covalently to their heme prosthetic groups (hemoproteins) can release heme and as such produce free heme, which is cytotoxic and causes tissue damage. When CO is bound to the ferrous iron (Fe⁺⁺) of these heme prosthetic groups, it prevents heme release. We have shown how this simple biologic effect can be used to suppress the pathogenesis of severe forms of malaria, revealing that free heme plays a central role in regulating the pathogenesis of severe forms of malaria as well as that of other diseases. We found that induction of this same protective mechanism explains how sickle cell anemia confers a survival advantage against malaria.

TEACHING CONTRIBUTIONS.

During the period of 1996-2002, while at the Beth Israel Deaconess Medical Center at Harvard Medical School I instructed/supervised seven post-doctoral fellows and one Ph.D. student from the University of Cambridge, UK. At the Instituto Gulbenkian de Ciência, Portugal (2002-4) I have taken the direct supervision of five Ph.D. students from the universities of Lisbon and Porto, Portugal, with two PhD thesis successfully finished. I am actively involved in the teaching activities of the PhD programs of the Instituto Gulbenkian de Ciência as well as those of the Institute of Molecular and Cellular Biology (GABBA) in Porto, Portugal and the Program for Advanced Medical Education supported by the Gulbenkian and Champalimaud Foundations, the Ministry of Health and the Portuguese Foundation for Science and Technology. I lecture on a yearly basis at the Medical School of the Universities of Lisbon, Portugal. I have lectured sporadically at the “Universidade Federal de São Paulo”, Brazil and the University of “Milano-Bicocca”, Milano, Italy in the chairs of Immunology for post-graduate students.

PATENTS

US Patent Office: INTERNATIONAL PUBLICATION NUMBER: WO 03/000114 A2; PCT/US02/19687; ENTITLED “CARBON MONOXIDE IMPROVES OUTCOMES IN TISSUE AND ORGAN TRANSPLANTS AND SUPPRESSES APOPTOSIS”.

US Patent Office: U.S. PATENT APPLICATION NO. 61387395 ENTITLED “TARGETING HEME FOR THE TREATMENT OF IMMUNE MEDIATED INFLAMMATORY DISEASES”.

RESEARCH FUNDING (ACTIVE)

April 2012-December 2016	European Research Council ERC-2011-Advanced Grant Proposal n° 294709 DAMAGECONTROL Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Tissue Damage Control Regulates The Pathogenesis of Immune Mediated Inflammatory Diseases"
January 2012-December 2014	Fundação para a Ciência e Tecnologia, Portugal PTDC/SAU-TOX/116627/2010 Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Targeting heme pharmacologically to treat severe forms of malaria.
October 2010-April 2012	The Bill & Melinda Gates Foundation Round 5 of Grand Challenges Explorations Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Protection against malaria by “natural” antibodies.
June 2010-June 2013	Fundação para a Ciência e Tecnologia, Portugal PTDC/BIA-BCM/101311/2008 Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Modulation of programmed cell death by free heme.

June 2010-June 2013	Fundação para a Ciência e Tecnologia, Portugal. PTDC/SAU-FCF/100762/2008 Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Pharmacologic use of Gasotransmitters in Severe Malaria.
PREVIOUS (NO LONGER ACTIVE)	
November 2005-Nov 2011	European Community, 6th Framework Grant LSH-2005-1.2.5-1. Application of post-genomics to xenotransplantation research. Coordinator: Emanuelle Cozzi Institution: Azienda Ospedaliera di Padova. Title: “Engineering of the porcine genome for xenotransplantation studies in primates: a step towards clinical application”. XENOME.
January 2008-Jan 2011	Fundação para a Ciência e Tecnologia, Portugal. PTDC/SAU-MII/65765/2006 Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Carbon monoxide generated by heme oxygenase-1 suppresses the pathogenesis of cerebral malaria: mechanism of action”.
July 2008-June 2010	EU Programme “PEOPLE” - Call ID “FP7 PEOPLE-2007-2-1-IEF” – Panel "LIF" - Proposal N° 220152 Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Crosstalk Between Nitric and Carbon Monoxide in Suppressing the Pathogenesis of Cerebral Malaria
January 2008-Jan 2010	GEMI Fund Linde Healthcare Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência. Title: Functional Interaction of Nitric and Carbon Monoxide in Suppressing the Pathogenesis of Cerebral Malaria.
June 1, 2005-May 30, 2007	GEMI Fund AgaLinde Healthcare Institution: Instituto de Medicina Molecular. Title: " <i>Mechanism of HO-1 / CO and Profilaxis/Therapeutical application of CO in the pathogenesis of severe malaria</i> "
January 1 st 2005-Dec. 31 st 2008	Fundação para a Ciência e Tecnologia, Portugal. POCTI/BIA-BCM/56829/2004 Principal Investigator: Miguel P. Soares. Institution: Instituto Gulbenkian de Ciência. Title: “ <i>Molecular Mechanisms Underlying the Protective Effect of Heme Oxygenase- 1: Interaction with the NF-kappaB Signal Transduction Pathway</i> ”
June 1 st 2005-June.31 st 2008	Phillip Morris External Research Program Principal Investigator: Miguel P. Soares Institution: Instituto Gulbenkian de Ciência.

- April 1st 2005-March.31st 2008
Title: “*Anti-atherogenic effect of inhaled carbon monoxide: Assessment of mechanism of action and potential therapeutic applications.*”
Fundação para a Ciência e Tecnologia, Portugal
POCTI/SAU-MNO/56066/2004
Principal Investigator: Miguel P. Soares.
Institution: Instituto Gulbenkian de Ciência.
- June 2003-May 2005
Title: “*Modulation of atherosclerosis by the protective gene heme oxygenase-1: Molecular mechanisms and therapeutic applications.*”
GEMI Fund AgaLinde Healthcare
Principal Investigator: Miguel P. Soares.
Institution: Instituto Gulbenkian de Ciência.
- March 2002-March 2005
Title: “*Inhaled CO and Multiple Sclerosis*”
Fundação para a Ciência e Tecnologia”, Portugal
POCTI/MGI/37296/2001
Principal Investigator: Miguel P. Soares.
Institution: Instituto Gulbenkian de Ciência.
- January 2002–Jan 2005
Title: “*Molecular mechanism by which carbon monoxide generated by heme oxygenase-1 suppresses endothelial cell apoptosis.*”
AstraZeneka
Principal Investigator: Miguel P. Soares
Institution: Instituto Gulbenkian de Ciência.
- Jan 2002–Jan 30 2005
Title: “*In vivo Delivery of Tat-fusion Proteins to Inhibit the Activation of the Transcription factor Nuclear Factor kappa B (NF-B) in vivo.*”
European Community, 5th Framework
Grant QLK3-CT-2001-00422
Coordinator: Hans Dieter Volk
Institution: Charite, Berlin.
- March 2002-March 2004
Title: “*Targeting Heme-Oxygenase-1 (HO-1) or its molecular mediators: a new therapeutic approach for treatment of inflammation*”
The Pfizer Atorvastatin Research Awards Program
Principal Investigator: Miguel P. Soares
Institution: Beth Israel Deaconess Medical Center
- July 2000 - April 2005.
Title: “*Protective effects of heme oxygenase-1 in vascular injury*”.
NIH RO1 Grant No: HL67040-01.
Principal Investigator: Miguel P. Soares.
Institution: Beth Israel Deaconess Medical Center.
- March 2000-March 2001:
Title: “*Regulation of endothelial cell apoptosis by HO-1 derived CO*”
Harvard Medical School Scholars in Medicine Fellowship “Phyllis and Paul Fireman Fellowship”.
Principal Investigator: Miguel P. Soares
Institution: Beth Israel Deaconess Medical Center
- Title: “*Regulation of endothelial cell apoptosis by heme oxygenase-1*”.

- April 1999-March 2002 Roche Organ Transplantation Research Foundation
Principal Investigator: Miguel P. Soares
Institution: Beth Israel Deaconess Medical Center
Title: “*Heme oxygenase-1: an anti-inflammatory molecule that promotes organ graft survival*”
- Sept 1998-Aug 2003 Harvard Institute for the cure of juvenile diabetes
funded by the Juvenile Diabetes Foundation.
Principal Investigator: Fritz H. Bach
Institution: Beth Israel Deaconess Medical Center
Program Head: Pr. Hugh Auchincloss Jr.
Co-investigator: Miguel P. Soares
Title: “*Xenotransplantation of Protected Porcine Islets*”.
- July 1998-July 2002 NIH RO1 HL58688-01A1
Principal Investigator: Fritz H. Bach.
Co-investigator: Miguel P. Soares
Institution: Beth Israel Deaconess Medical Center
Title: Xenotransplants: “*Genetically engineered endothelial cells*”.

PUBLICATIONS IN PEER REVIEWED JOURNALS (**H FACTOR: 37**):

1. Silva-Gomes S., Appelberg R., **Soares M.P.** and Salomé Gomes M. The heme/heme oxygenase-1 system controls host resistance to mycobacterium infections. (*Submitted*).
2. Pejanovic N., Hochrainer K., Liu T., Aerne B.L., **Soares M.P.** and Anrather J. Regulation of NF- κ B transcriptional activity via p65 acetylation by the chaperonin containing TCP1 subunit η . (*Submitted*).
3. Lawson-Hogban N., Briquet S., Boisson B., **Soares M.P.**, Ménard R., Huerre M., Mécheri S. and Vaquero C.M. *Plasmodium* high mobility group box (HMGB) proteins: Implication in the development of experimental cerebral malaria. (*Submitted*).
4. Wegiel B., Larsen R., Gallo D., Chin B. Y., Harris C., Mannam P., Kaczmarek E., Rebelo S., Lee P., Zuckerbraun B. S., Flavell R., **Soares M.P.**, Otterbein L.E. Carbon monoxide is a host innate immune sensor against bacteria. (*Submitted*).
5. Figueiredo N., Chora A., Raquel H., Neves-Costa A., Moita C., Hafeez Faridi, Ferreira J.A., Costa P., Gozzelino R., Zhao J.L., Gupta V., **Soares M.P.**, Gama-Carvalho M., Baltimore D., and Moita L.F. The anthracycline epirubicin triggers an ATM-dependent protective response against severe sepsis. (*Submitted*).
6. Gozzelino R., Larsen R., Vanoaica L., Seixas E., Coutinho A., Cardoso S., Rebelo S., Darshan D., Kühn L.C. and **Soares M.P.** Ferritin H Chain Confers Tolerance to *Plasmodium* Infection. (*Submitted*).
7. Medzhitov R., Schneider D. and **Soares M.P.** Disease Tolerance as a Host Defense Strategy. 2012. *Science* 335, 936.
8. Mourão-Sá D., Robinson M., Zelenay S., Sancho D., Chakravarty P., Larsen R., Plantinga M., Rooijen N.V., **Soares M.P.**, Lambrecht B. and Reis e Sousa C. CLEC-2 signaling via Syk in myeloid cells can regulate inflammatory responses. *European Journal of Immunology*. 2011. *Eur J Immunol.*, 2011 Oct;41(10):3040-53.
9. Zenclussen M.L., Casalis P.A., El-Mousleh T., Rebelo S., Brachwitz N., Scharm M., Volk H.D., Fest S., **Soares M.P.**, Zenclussen A.C Heme oxygenase-1 dictates intrauterine fetal survival via carbon monoxide. 2011. *J. Pathol.*, 225: 293–304.
10. Ferreira A., Marguti I. Bechmann I., Chora A., Palha N.R., Rebelo S., Henri A., Beuzard Y. and **Soares M.P.** Sick Hemoglobin Confers Tolerance to *Plasmodium*

- Infection. 2011. *Cell*, Vol. 145, Issue 3, 398-409, 29. NOTE: *Research Highlights: Cell, Vol. 145, Issue 3, 335-336*).
11. Larsen R., Gozzelino R., Jeney V., Tokaji L., Bozza F.A., Japiassú A.M., Bonaparte D., Cavalcante M.M., Chora A., Ferreira A., Marguti I., Cardoso S., Sepulveda N., Smith A. and **Soares M.P.** 2010. A central role for free heme in the pathogenesis of severe sepsis. *Science Translational Medicine*, 2(51): 51. NOTE: *Comment in Nature Research highlights, October 7, Vol 467, page 637*.
 12. Gozzelino R., Jeney V. and **Soares M.P.** Mechanisms of Cell Protection by Heme oxygenase-1. *Annual Rev. Pharmacol. Toxicol.* 2010. 50:323–54.
 13. Cheng M.C., Noorderloos A.M., van Deel E.D., Tempel D., den Dekker W., Wagtmans K., Duncker D. J., **Soares M.P.**, Laman J.D., Duckers H.J. Dendritic Cells function in Transplantation arteriosclerosis is regulated by heme oxygenase 1. 2010. *Circulation Research*, May 28;106(10):1656-66. Epub 2010 Apr 8.
 14. Nagy E., Eaton J.W., Jeney V., **Soares M.P.**, Varga Z., Galajda Z., MD, Szentmiklósi J., Méhes G., Csonka T., Smith A., Vercellotti G.M., Balla G., Balla J. 2010. Red cells, hemoglobin, heme, iron and atherogenesis. *Arterioscler. Thromb. Vasc. Biol.* Jul;30(7):1347-53. Epub 2010 Apr 8.
 15. Kinderlerer A.R, Pombo Gregoire I., Hamdulay S.H., Steinberg R., Ali F., Silva G., Ali N., Haskard D.O., **Soares M.P.**, Mason J.C. Heme-oxygenase-1 expression enhances vascular endothelial resistance to complement mediated injury through induction of decay-accelerating factor. 2009, *Blood*, Vol. 113, No. 7, pp. 1598-1607.
 16. Rodrigues I., Filipe J., Seldon M.P., Anrather J., **Soares M.P.**, Simas J.P. Termination of NF-κB via a gamma herpesvirus that assembles an EC5S ubiquitin ligase. 2009. *EMBO Journal*, 6; 28(9):1283-95.
 17. Cheng C., Noorderloos A.M., Jeney V., **Soares M.P.**, Moll F., Pasterkamp G., Serruys P.W. and Duckers H.J. Heme oxygenase 1 determines atherosclerotic lesion progression into a vulnerable plaque. 2009. *Circulation*. Jun 16; 119 (23): 3017-27.
 18. Seixas E., Gozzelino R., Chora A., Ferreira A., Silva G., Larsen R., Rebelo S., Penido C., Smith N.R., Coutinho A. and **Soares M.P.** Heme oxygenase-1 affords protection against noncerebral forms of severe malaria. 2009. *Proc. Natl. Acad. Sci. USA*. Sep 15; 106 (37): 15837-42. Epub 2009 Aug 17.
 19. **Soares M.P.** and Fritz H. Bach. Heme oxygenase-1: from biology to therapeutic potential. *Trends in Molecular Medicine*. 2009 Feb; 15(2): 50-8.
 20. **Soares M.P.**, Marguti I., Cunha A. and Larsen R. Immunoregulatory Effects of HO-1: How does it work? *Current Opinion in Pharmacology and Toxicology*, 2009 Aug; 9(4):482-92009.
 21. Silva G., Jeney V., Chora A., Larsen R., Balla J.* and **Soares M.P.***. Oxidized Hemoglobin is an Endogenous Proinflammatory Agonist That Targets Vascular Endothelial Cells. 2009. *Journal of Biological Chemistry*. Vol. 284, No. 43, pp. 29582–29595, October 23. NOTE: *Equal contribution.
 22. Epiphanyo S, Mikolajczak SA, Gonçalves LA, Pamplona A, Portugal S, Albuquerque S, Goldberg M, Rebelo S, Anderson DG, Akinc A, Vornlocher HP, Kappe SH, **Soares M.P.** and Mota M.M. Induction of HO-1 during Plasmodium liver infection protects infected hepatocytes by modulating the inflammatory response. 2008. *Cell Host and Microbe*, Vol 3, 331-338.
 23. Ferreira A, Balla J, Jeney V, Balla G, **Soares M.P.** A central role for free heme in the pathogenesis of severe malaria: the missing link? *Journal of Molecular Medicine*, 2008 Oct; 86(10): 1097-111. Epub 2008 Jul 19.
 24. Ozaki K.S., Marques G.M., Nogueira E., Feitoza R.Q., Cenedeze M.A., Franco M.F., Mazzali M., **Soares M.P.**, Pacheco-Silva A., Câmara N.O. Improved renal function after kidney transplantation is associated with heme oxygenase-1 polymorphism. 2008. *Clin Transplant*. Sep-Oct;22(5):609-16. 2008 May 4.
 25. Zelenay S, Chora A, **Soares M.P.** and Demengeot J. Heme oxygenase-1 is not required for mouse regulatory T cell development and function. 2007. *Int Immunol*, Jan; 19(1):11-8.

26. Chora A., Fontoura P., Cunha A., P Ho P. Lee L., Steinman L., **Soares M.P.** Heme Oxygenase-1 and Carbon Monoxide Suppress Autoimmune Neuroinflammation. 2007. *Journal of Clinical Investigation*, 117, 438-447.
27. Pamplona, A., Ferreira, A., Balla, J., Jeney, V., Balla, G., Epiphanyo, S., Chora, A., Rodrigues, C.D., Cunha-Rodrigues, M., Portugal, S., **Soares M.P.*** and Mota, M.M*. Heme oxygenase-1 and carbon monoxide suppress the pathogenesis of experimental cerebral malaria. 2007. *Nature Medicine*, 13:703-10. NOTE: *Equal contribution.
28. **Soares M.P.** and Bach F.H. Heme Oxygenase-1 in organ Transplantation. *Frontiers in Bioscience*. 2007. Sep 1; 12:4932-45.
29. Ali F., Hamdulay S.S., Kinderlerer A.R, Boyle J.J., Lidington E.A., Yamaguchi. T., **Soares M.P.**, Haskard D.O., Randi A.M., Mason J.C. Statin-mediated cytoprotection of human vascular endothelial cells: a role for Kruppel-like factor 2-dependent induction of heme oxygenase-1. 2007. *Journal of Thrombosis and Haemostasis*, 5(12): 2537-46.
30. Seldon M.P., Silva G., Pejanovic N., Larsen R., Pombo Gregoire I., Filipe J., Anrather J. and **Soares M.P.** Heme Oxygenase-1 Inhibits the Expression of Adhesion Molecules Associated with Endothelial Cell Activation via Inhibition of Nuclear Factor Kappa B (NF- κ B) RelA phosphorylation at Serine276. 2007. *The Journal of Immunology*, 179(11): 7840-51.
31. Yamashita K., Öllinger R., McDaid J., Sakahama H., Wang H., Tyagi S., Csizmadia E., Smith N.R., **Soares M.P.*** and Bach F.H*. Heme Oxygenase-1 is Essential for and Promotes Tolerance to Transplanted Organs. *The FASEB Journal*. 2006 Feb 10 PMID: 16473885. NOTE: *Equal contribution.
32. Oliveira V., Agua-Doce A., Joana D., **Soares M.P.** and Graca L. Regulatory T cell maintenance of dominant tolerance: induction of tissue self-defense?. 2006, *Transplant. International* 2006 Dec;17(1):7-10. Epub 2006 Oct 12.
33. Silva GM, Cunha A., Grégoire I.P., Seldon M.P. and **Soares M.P.** Anti-Apoptotic Effect of Heme Oxygenase-1 in Endothelial Cells: Degradation of p38 α Mitogen Activated Protein Kinase (MAPK). 2006. *The Journal of Immunology*, 177:1849-1903.
34. McDaid J., Yamashita K., Chora A., Öllinger R., Strom T.B., Li X.C., Bach F.H. and **Soares M.P.** Heme Oxygenase-1 Modulates the Allo-immune Response by Promoting Activation Induced Cell Death of T cells. *The FASEB Journal*. January 2005, accession number 15640283.
35. Wang H., Lee SS., McDaid J., Öllinger R., Czismadia E., Gao W., **Soares M.P.** Yamashita K. and Bach FH. Donor treatment with carbon monoxide can yield islet allograft survival and tolerance. *Diabetes*. 2005 May; 54(5):1400-6.
36. Öllinger R., Bilban M., Erat A., Froio A., McDaid J., Tyagi S., Csizmadia E., Graça-Souza AV., Liloia A., **Soares M.P.**, Usheva A., Yamashita K. and Bach FH. Bilirubin: a natural inhibitor of arteriosclerosis. *Circulation*. 2005, 16; 112(7): 1030-9.
37. **Soares M.P.**: VEGF: Is it just an inducer of heme oxygenase-1 expression ? *Blood*, Feb 2004; 103: 751.
38. Olsen N and **Soares M.P.** Heme Oxygenase-1 (HO-1), a protective gene that promotes long-term survival of transplanted organs. Special series "Heme oxygenase in human disease". *Free Radical Biology and Medicine*. December 2004, 38. 426-435.
39. **Soares M.P.**, Seldon M.P., Gregoire, I.P., Vassilevskaia T., Berberat P.O., Yu J., Tsui T.Y. and Bach F.H. Heme oxygenase-1 modulates the expression of adhesion molecules associated with endothelial cell activation. 2004. *The Journal of Immunology*, 172: 3553–3563.
40. Yamashita K., McDaid J., Öllinger R., Tsui, TY., Berberat PO., Usheva A., Csizmadia E., Smith NR., Soares M.P* and FH Bach*. Biliverdin, a natural product of heme catabolism, induces tolerance to cardiac allografts. 2004. *The FASEB Journal*; 18:765-767. NOTE: *Equal contribution.

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