

CURRICULUM VITAE

1. Personal Details

Name Gabriela Santos-Gomes

Nationality Portuguese

Filiation Global Health and Tropical Medicine (GHTM), Instituto de Higiene e Medicina Tropical (IHMT), Universidade Nova de Lisboa (NOVA).

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2. Academic degrees

2010 Academic Portuguese Title Agregação (a public examination required to further apply for a position of full professor) in Biomedical Sciences, UNL.

1996 PhD in Microbiology, Faculdade de Ciências, Universidade de Lisboa, Lisbon, Portugal

1987 Five-year degree in Biological Sciences, Faculdade de Ciências, Universidade de Lisboa, Lisbon, Portugal

3. Positions

2015– Present Researcher in the Vector Born Diseases and Pathogens Group, GHTM, IHMT-NOVA

2005 – 2007 Member of the COST B22 Action Management Committee, Drug development for parasitic diseases (Working Group on Tropical Diseases)

1998 – Present Assistant Professor, Research and Teaching Unit of Medical Parasitology, IHMT-UNL

1997 Invited Assistant, Medical Parasitology, IHMT-UNL

1996 - 2014 Researcher at the Center of Malaria and Other Tropical Diseases (CMDT), IHMT-UNL

4. Research activity

The research activity is focused on two main lines: (i) investigation of host-parasite interactions and (ii) development of control strategies for parasitic diseases. Our main objectives are to explore the immune response of the host to parasites, by characterizing innate immunity and cell-mediated immune response and develop new prophylactic and therapeutic directed to parasitic diseases, primarily focused on diseases caused by trypanosomatids.

5. Research projects (2010-Present)

- Vaccine for prevention and treatment of *Trypanosoma cruzi* Infection – *CRUZIVAX* (Ref. No 815418 European Union's Horizon 2020 - Research and innovation programme)
- Achieving new frontiers through trypanosomatid exosomes (TEx) – *EXOTRYPANO* (Ref PTDC/CVT-CVT/28908/2017, Portuguese Foundation for Science and Technology - FCT)

- RedVLP - Red Iberoamericana para el desarrollo en base a micromecenazgo de vacunas contra enfermedades infecciosas con tecnología en plataforma VLP (Cyted ref 216RT0506)
- *Anti-Leishmania* and anti-*Trypanosome* potential of oleanolic and ursolic acids (FAPESP, 2013/16297-2, Brazil)
- Provoquemos-lhes a queda: Estudo genómico, proteómico e imuno-histológico da involução do cimento de fixação de carraças (PTDC/CVT-EPI/3460/2012, FCT)
- Regulatory immune response in dogs with leishmaniosis at various clinical stages and undergoing different therapeutic protocols (PTDC/CVT/118566/2010, FCT)

6. Publications (2010 - Present)

- Gabriel Á, Valério-Bolas A, Palma-Marques J, Mourata-Gonçalves P, Ruas P, Dias-Guerreiro T, **Santos-Gomes G**. 2019. Cutaneous leishmaniasis: The complexity of host's effective immune response against a polymorphic parasite disease. *Journal of Immunology Research* 2019:2603730
- Santos MF, Alexandre-Pires G, Pereira M A, Marques CS, Gomes J, Correia J, Duarte A, Gomes L, Rodrigues AV, Basso A, Reisinho A, Meireles J, Santos-Mateus D, Villa Brito MT, Tavares L, **Santos-Gomes GM**, Pereira da Fonseca I. 2019. Meglumine antimoniate and miltefosine combined with allopurinol sustain pro-inflammatory immune environments during canine leishmaniosis treatment. *Frontiers in Veterinary Science*, 6: 362.
- Pereira M, Valério-Bolas A, Saraiva-Marques C, Alexandre-Pires G, Pereira da Fonseca I, **Santos-Gomes G**. 2019. Development of dog immune system: From *in utero* to elderly. *Veterinary Science*. 6(4). pii: E83. doi: 10.3390/vetsci6040083.
- Pereira MA, Alexandre-Pires G, Câmara M, Santos M, Martins C, Rodrigues A, Adriana J, Passero LFD, Pereira da Fonseca I, **Santos-Gomes G**. 2019. Canine neutrophils cooperate with macrophages in the early stages of *Leishmania infantum* *in vitro* infection. *Parasite Immunol.* 41(4):e12617
- Rodrigues A, Alexandre-Pires G, Valério-Bolas A, Santos-Mateus D, Rafael-Fernandes M, Pereira MA, Ligeiro D, Nunes T, Alves-Azevedo R, Lopes-Ventura S, Santos M, Tomás AM, Pereira da Fonseca I, **Santos-Gomes G**. 2018. Dog hepatocytes are key effector cells in the liver innate immune response to *Leishmania infantum*. *Parasitology*. 18:1-12
- Valério-Bolas A, Pereira M, Alexandre-Pires G, Santos-Mateus D, Rodrigues A, Rafael-Fernandes M, Gabriel A, Passero F, **Santos-Gomes G**. 2019. Intracellular and extracellular effector activity of mouse neutrophils in response to cutaneous and visceral *Leishmania* parasites. *Cell Immunol.* 335:76-84.
- Passero LFD, Cruz LA, **Santos-Gomes G**, Rodrigues E, Laurenti MD, Lago JHG. 2018. Conventional Versus Natural Alternative Treatments for Leishmaniasis: A Review. *Curr Top Med Chem.* 18(15):1275-1286.
- Pereira M, Valério-Bolas A, Santos-Mateus D, Alexandre-Pires G, Santos M, Rodrigues A, Rocha H, Santos A, Martins C, Tomas A, Passero F, da Fonseca IP, **Santos-Gomes G**. 2017. Canine neutrophils activate effector mechanisms in response to *Leishmania infantum*. *Vet Parasitol.* 248:10-20.
- Rodrigues A, Santos-Mateus D, Alexandre-Pires G, Valério-Bolas A, Rafael-Fernandes M, Pereira MA, Ligeiro D, de Jesus J, Alves-Azevedo R, Lopes-Ventura S, Santos M, Tomás AM, Pereira da Fonseca I, **Santos-Gomes G**. 2017. *Leishmania infantum* exerts immunomodulation in canine Kupffer cells reverted by meglumine antimoniate. *Comp Immunol Microbiol Infect Dis.* 55:42-52.

- Gomes J, Santos M, Amaro A, Pereira da Fonseca I, **Santos-Gomes G**, Inácio J. 2017. A field evaluation of an isothermal DNA amplification assay for the detection of *Theileria annulata* infection in cattle. *Molecular and Cellular Probes* 31:61-64.
- Jesus JA, Fragoso TN, Yamamoto ES, Laurenti MD, Lago JHG, Silva MS, **Santos-Gomes G**, Passero LFD. 2017. Therapeutic effect of ursolic acid in experimental visceral leishmaniasis *International Journal for Parasitology: Drugs and Drug Resistance* 7(1):1-11
- Rodrigues A, Claro M, Alexandre-Pires G, Santos-Mateus D, Martins C, Valério-Bolas A, Rafael-Fernandes M, Pereira MA, Pereira da Fonseca I, Tomás AM, **Santos-Gomes G**. 2017. *Leishmania infantum* antigens modulate memory cell subsets of liver resident T lymphocyte. *Immunobiology*.222(2):409-422.
- Gomes J, Salgueiro P, Inácio J, Amaro A, Pinto J, Tait A, Shiels B, Pereira da Fonseca I, **Santos-Gomes G**, Weir W. 2016. Population diversity of *Theileria annulata* in Portugal. *Infection, Genetics and Evolution* 42:14-19.
- Basso MA, Marques C, Santos M, Duarte A, Pissarra H, Carreira LM, Gomes L, Valério-Bolas A, Tavares L, **Santos-Gomes G**, Pereira Fonseca I. 2016. A successful treatment of feline leishmaniosis using an association of allopurinol and N-methyl-glucamine antimoniate. *Journal of Feline Medicine and Surgery Open Reports* 2: 1 –7
- Santos-Mateus D, Passero F, Rodrigues A, Valério-Bolas A, Silva-Pedrosa R, Pereira M, Laurenti MD, **Santos-Gomes G**. 2016. The battle between *Leishmania* and the host immune system at a glance. *International Trends in Immunity* 4: 28-34.
- Yamamoto ES, Campos BL, Jesus JA, Laurenti MD, Ribeiro SP, Kallás EG, Rafael-Fernandes M, **Santos-Gomes G**, Silva MS, Sessa DP, Lago JH, Levy D, Passero LF. 2015. The effect of ursolic acid on *Leishmania (Leishmania) amazonensis* is related to programmed cell death and presents therapeutic potential in experimental cutaneous leishmaniasis. *PLoS One* 10:e0144946.
- Carvalheiro M, Alexandra Esteves M, Santos-Mateus D, Lopes RM, Armanda Rodrigues M, Eleutério CV, Scoulica E, **Santos-Gomes G**, Cruz ME. 2015. Hemisynthetic trifluralin analogues incorporated in liposomes for the treatment of leishmanial infections. *European Journal of Pharmaceutics and Biopharmaceutics* 93: 346-352.
- Marques CS, Passero LFD, Vale-Gato I, Rodrigues A, Rodrigues OR, Martins C, Correia I, Tomás AM, Alexandre-Pires G, Ferronha MH, **Santos-Gomes GM**. 2015. New insights into neutrophil and *Leishmania infantum* *in vitro* immune interactions. *CIMID* 40: 19-29.
- Ferrolho J, Domingues N, Domingos A, **Santos-Gomes G**. 2015. The role of regulatory CD4⁺CD25⁺ T cell subset in host homeostasis during protozoan infection: An overview. *International Trends in Immunity* 3: 6-16.
- Passero LF, Laurenti MD, **Santos-Gomes G**, Campos BL, Sartorelli P, Lago JH. 2014. Plants used in traditional medicine: extracts and secondary metabolites exhibiting antileishmanial activity. *Current Clinical Pharmacology* 9:187-204.
- **Santos-Gomes GM**, Rodrigues A, Teixeira F, Carreira J, Alexandre-Pires G, Carvalho S, Santos-Mateus D, Tomás AM. 2014. Immunization with the *Leishmania infantum* recombinant cyclophilin protein 1 confers partial protection to subsequent parasite infection and generates specific memory T cells. *Vaccine* 32:1247-1253.
- Armada A, Gazarini M, Gonçalves LM, Antunes S, Custódio A, Rodrigues A, Almeida AJ, Silveira H, do Rosário VE, **Santos-Gomes G**, Domingos A. 2013. Generation of an antibody that recognizes *Plasmodium chabaudi* cysteine protease (chabaupain-1) in both sexual and asexual parasite life cycle and evaluation of chabaupain-1 vaccine potential. *Experimental Parasitology* 135:166-174.

- Gomes J, Soares R, Santos M, **Santos-Gomes G**, Botelho A, Amaro A, Inácio J. 2013. Detection of *Theileria* and *Babesia* infections amongst asymptomatic cattle in Portugal. *Ticks and Tick-Borne Diseases* 4: 148-151.
- Diaz S, Pereira da Fonseca I, Rodrigues A, Martins C, Cartaxeiro C, Silva MJ, Villa de Brito T, Alexandre-Pires G, **Santos-Gomes G**. 2012. Canine leishmaniosis. Modulation of macrophage/lymphocyte interactions by *L. infantum*. *Veterinary Parasitology* 89:137-144.
- Passero LFD, Marques C, Vale-Gato I, Corbett CEP, Laurenti MD, **Santos-Gomes G**. 2012. Analysis of the protective potential of antigens released by *Leishmania (Viannia) shawi* promastigotes. *Archives of Dermatological Research* 304: 47-55.
- Barbosa MA, Alexandre-Pires G, Soares-Clemente M, Marques C, Rodrigues OR, De Brito TV, Da Fonseca IP, Alves LC, **Santos-Gomes GM**. 2011. Cytokine gene expression in the tissues of dogs infected by *Leishmania infantum*. *Journal of Comparative Pathology*, 145: 336-344.
- The Working Group on Research Priorities for Development of Leishmaniasis Vaccines (Ali N, Brodskyn C, Campos-Neto A, Carvalho E M, Chang KP, Fernandes AP, Fujiwara R, Gazzinelli R, Goto H, Grimaldi G, Kaye P, Kedzierski L, Khamesipour A, Maia C, McMaster WR, Mendonça S, Nakhasi HL, Piazza F, Quinnell R, Reis AB, **Santos-Gomes G**, Shaw J, Valenzuela J, Walden P, Werneck G) and CH Nery Costa, N Peters, S R Maruyama, E Cardoso de Brito Jr., Santos IKM. 2011. Vaccines for the leishmaniasis: proposals for a research agenda. *PLoS Neglected Tropical Diseases* 5: e943.
- Alexandre-Pires G, Villa de Brito MT, Algueró C, Martins C, Roos Rodrigues O, Pereira da Fonseca I, **Santos-Gomes G**. 2010. Canine leishmaniosis. Immunophenotypic profile of leukocytes in different compartments of symptomatic, asymptomatic and treated dogs. *Veterinary Immunology and Immunopathology*, 137: 275–283.
- Passero LFD, Marques C, Vale-Gato I, Corbett CEP, Laurenti MD, **Santos-Gomes G**. 2010. Histopathology, humoral and cellular immune response in the murine model of *Leishmania (Viannia) shawi*. *Parasitology International*, 59: 159-165

7. Student supervision

- PhD students - 13
- MSc students - 22
- Graduation students - 7

8. Teaching

8.1. Coordination of PhD in Biomedical Sciences (IHMT-NOVA) (April 2020)

8.2. Coordination of the following curricular units:

- Pathology and immunology of parasitic diseases (MSc in Tropical Diseases, IHMT-NOVA)
- Parasite immunology (MSc in Medical Parasitology, IHMT-NOVA)
- Immunology (MSc in Biomedical Sciences, IHMT-UNL)
- Scientific writing (MSc in Biomedical Sciences, IHMT-UNL)
- Immunology (PhD in Biomedical Sciences, Universidade Agostinho Neto, Luanda, Angola)
- Immunology of infectious and parasitic diseases (PhD in Biomedical Sciences, IHMT-UNL)
- Scientific communication (PhD in Biomedical Sciences, IHMT-UNL)

8.3. Co-organization of the course Advances in Molecular and Cellular Biology, RENORBIO PhD programme (Teresina, PI, Brazil) (2008, 2009, 2010, 2012)

8.4. Member of the Scientific Committee of Biomedical Sciences MSc (IHMT-UNL) and of Biomedical Sciences PhD (IHMT-UNL) (IHMT-UNL) (2010-2020)

9. Scientific evaluation

9.1. Referee of manuscripts for several scientific journals on Veterinary, Parasitology and Immunology fields

9.2. Evaluator of European and non-European funding agencies

May, 2020

A handwritten signature in black ink, appearing to read 'Gabriela Santos-Gomes', with a long horizontal flourish extending to the right.

Gabriela Santos-Gomes