

Curriculum Vitae (Summary)

Name: Maria Odete Alves Marques Carolino e Afonso.

Date & place of birth: 30-06-1954, Luanda, Angola.

Nationality: Portuguese.

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Institutional Address: Unidade de Parasitologia Médica, GHM,
Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa,
Rua da Junqueira, 100, 1300 Lisboa, Portugal.

Present position:

- Assistant Professor in Medical Entomology/Parasitology, at the Institute of Hygiene and Tropical Medicine, Universidade Nova de Lisboa (IHMT/UNL), Portugal, since 2001.
- Director of Common Services, IHMT/UNL, since feb 2015.

Academical degrees, fields of study, awarding institutions, dates:

- Medical degree (MD), University of Lisbon (Classic), Medical Faculty, 1982.
- Course of Public Health and Tropical Medicine, IHMT, UNL, 1988.
- MSc Medical Parasitology/Entomology (Exams in Pedagogic Aptitude and Scientific Capacity - equivalent degree), Universidade Nova de Lisboa (IHMT/UNL), 1992.
- PhD in Biomedical Sciences, Parasitology/Entomology, Universidade Nova de Lisboa (IHMT/UNL), 2001.

Teaching activities:

- Coordinator of Curricular Unit "Ticks, others ectoparasites and associated diseases in the Global World", MSc in Medical Parasitology of the IHMT/UNL, since 2012.
- Coordinator of Curricular Unities "Medical Entomology I and Medical Entomology II", PhD Course Biomedical Sciences, in IHMT/UNL, 2013-2014.
- Coordinator of Curricular Unities "Medical Entomology I and Medical Entomology II", PhD Course Biomedical Sciences, (Parasitology) in IHMT/UNL, 2014-2015.
- Coordinator of Curricular Unity "Medical Entomology", MSc Course Medical Parasitology in IHMT/UNL, 2014-2015.
- Professor in Medical Entomology and Parasitology, in MSc and PhD Courses in IHMT/UNL, 2001-present.
- Invited teacher at Medicine Faculty of Lisbon/ UL; Vasco da Gama University of Coimbra; University of Évora; University of Algarve; Faculty of Medicine Veterinary /UTL, Lisbon Portugal.

Area of scientific activity:

- Medical Entomology and Parasitology: tsetse flies, sand flies, human lice, bed bugs with medical importance, HAT, Nagana, Leishmaniasis, human pediculosis and others human ectoparasitosis, climate changes – arthropods vectors.
- Studies on sand fly vectors aimed at Leishmaniasis, vector incrimination, and epidemiology.
- Studies on tsetse fly vectors aimed at African trypanosomiasis (Guiné-Bissau, Guiné Equatorial and Angola), vector incrimination, and epidemiology.
- Sand fly systematics and bioecological and surveillance studies in different settings (North to South of Portugal).
- Climate change and risk analysis of sand fly borne diseases, in collaboration with specialists on remote detection.

Supervision activities:

Laboratorial Training - 25 finished; MSc Thesis - 8 finished and 2 ongoing ; PhD Thesis - 1 ongoing; Postdocs - 2 finished.

National Consulting Activity

Consultant - Project of Algarve University (sand flies surveillance).

Participation in International Networks:

“OnLeish observatory”.

Research (research/participation) in national and international projects:

National Projects: Phlebotomine studies - Trás-os-Montes e Alto Douro (North of Portugal), UTAD, IHMT, UPMM/FCT; Castelo Branco (CnPq, FIOCRUZ & IHMT), Arrábida (IHMT, UPMM, CMDT/ FCT), Torres Novas (IHMT, UPMM, FCT), Lisboa and Palmela (Centre of Portugal) (IHMT, UPMM/FCT; Alentejo (IHMT, UPMM/FCT & U. Evora; IHMT, GHTM) and Algarve (South of Portugal) (IHMT, UPMM, CMDT/ FCT).

International Projects: Phlebotomine studies – EDEN (EU, IHMT, UPMM/FCT) and EDENext (EU, IHMT, CMDT/FCT) projects.

Selected Publications:

Pereira, S.P., Pita-Pereira, D., Araújo-Pereira, T., Britto, C., Costa Rego, T., Ferrolho, J., Vilhena, M., Rangel, E.F., Vilela, M.L. & **Afonso, M.O. (2017)**. First molecular detection of *Leishmania infantum* in *Sergentomyia minuta* (Diptera, Psychodidae) in Alentejo, Southern Portugal. *Acta Tropica*, 174, 45-48. <http://dx.doi.org/10.1016/j.actatropica.2017.06.020>

Alten, B., Maia, C., **Afonso, M.O.**, Campino, L., Jiménez, M., González, E., Molina, R., Banuls, A.L., Prudhomme, J., Vergnes, B., Toty, C., Cassan, C., Rhola, N., Therry, M., Sereno, D., Bongiorno, G., Bianchi, R., Khoury, C., Tsigotakis, N., Dokianakis, E., Antouniou, M., Christodoulou, V., Mazeris, A., Karakus, M., Ozbel, Y., Arserim, S.K., Kasap, O.E., Gunay, F., Oguz, G., Kaynas, S., Tsertsvadze, N., Tskhvaradze, L., Giorgobiani, E., Gramisiccia, M., Volp, P. & Gradoni, L. (2016). Seasonal dynamics of Phlebotomine sand fly proven vectors of Mediterranean Leishmaniasis caused by *Leishmania infantum*. *Plos Neglected Tropical Diseases*, 10, 2, <http://dx.doi.10.1371/journal.pntd.0004458>

Bravo-Barriga, D., Parreira, R., Maia, C., **Afonso, M.O.**, Blanco-Ciudad, J., Serrano Aguilera, F.J. & Pérez-Martín, J. H. (2016). Detection of *Leishmania* DNA and blood meal sources in phlebotomine sand flies (Diptera: Psychodidae) in Western of Spain: update on distribution and risk factors associated. *Acta Tropica*, 164: 414–424. <http://dx.doi.org/10.1016/j.actatropica.2016.10.003>

Bravo-Barriga, D., Parreira, R., Maia, C., Blanco-Ciudad, J., **Afonso, M.O.**, Frontera, E., Campino, L., Pérez-Martín, J.H., Serrano Aguilera, F.J. & Reina, C. (2016). First molecular detection of *Leishmania tarentolae*-like DNA in *Sergentomyia minuta* in Spain. *Parasitol Res*, 115:1339-1344. <http://dx.doi.org/10.1017/s00436-015-4887-z>

Ferrolho, J., Maia, C. Gomes, J., Alves-Pires, C., Cristóvão, J.M., Campino, C. & **Afonso, M.O. (2015)**. Rotation of the external genitalia in male Phlebotomine sand flies (Diptera, Psychodidae) in laboratory conditions and in captured specimens in Algarve, Portugal. *Acta Tropica*, 150, 1-3. <http://dx.doi.org/10.1016/j.actatropica.2015.06.016>

Depaquit, J., Hadj-Henni, L., Bouanomous, A., Strutz, S., Boussaa, S., Morillaz-Marquez, F., Pesson, B., Gállego, M., Délecolle, J.C., **Afonso, M.O.**, Alves-Pires, C., Capela, R.A., Couloux, A. & Léger, N. (2015). Mitochondrial DNA intraspecific variability in *Sergentomyia minuta* (Diptera: Psychodidae). *Journal of Medical Entomology*, 25, 819-828. <http://dx.doi:10.1093/jme/tjv/075>

Maia, C., Parreira, R., Cristóvão, J.M., Freitas, F.B., **Afonso, M.O.** & Campino, L. (2015). Molecular detection of Leishmania DNA and identification of blood meals in wild caught phlebotomine sand flies (Diptera: Psychodidae) from southern Portugal. *Parasite & Vectors*, 8: 173
DOI: 10.1186/s13071-015-0787-4

Maia, C., Parreira, R., Cristóvão, J.M., **Afonso, M.O.** & Campino, L. (2015). Exploring the utility of phylogenetic analysis of cytochrome oxidase gene subunit I as a complementary tool to classical taxonomical identification of phlebotomine sand fly species (Diptera, Psychodidae) from southern Europe. *Acta Tropica*, 144: 1-8 <http://dx.doi.org/10.1016/j.actatropica.2014.12.013>

Branco, S., Alves-Pires, C., Maia, C., Cortes, S., Cristóvão, J.M.S., Gonçalves, L., Campino, L. & **Afonso, M.O.** (2013). Entomological and ecological studies in a new potential zoonotic leishmaniasis focus in Torres Novas municipality, Central Region, Portugal. *Acta Tropica* 125: 339-348. DOI:10.1016/j.actatropica.2012.12.008

Campino, L. Cortes, S., Dionísio, L., Neto, L., **Afonso, M.O.** & Maia, C., (2013). The first detection of *Leishmania major* in naturally infected *Sergentomyia minuta* in Portugal. *Mem Inst Oswaldo Cruz*, 108 (4): 516-518. doi: 0.1590/0074-0276108042013020

Maia, C., Dionísio, L., **Afonso, M.O.**, Neto, L., Cristóvão, J.M.S. & Campino, L. (2013). *Leishmania* infection and host-blood feeding preferences of phlebotomine sand flies and canine leishmaniasis in an endemic European area, the Algarve Region in Portugal. *Mem Inst Oswaldo Cruz*, 108 (4): 481-487. doi: 10.1590/0074-0276108042013014

Afonso, M.O. (2012). Bioecologia e importância médica das glossinas (Diptera, Glossinidae) e dos flebotomos (Diptera, Psychodidae) como vetores de tripanossomatídeos. *Anais do Instituto de Higiene e Medicina Tropical (Edição Comemorativa)*: 85-98.

Afonso, M.O. (2011). O papel dos insectos vetores pertencentes à Subfamília Phlebotominae e Família Glossinidae na transmissão de protozoários Trypanosomatidae: monitorização e controlo. O efeito das alterações climáticas nas populações vectoriais. *Boletim Informativo do Grupo de Investigação em Ciência e Tecnologia Animal, ICAAM / Universidade de Évora, Portugal, CTA Newsletter* 3: 1-5.

Franco, AO, Davies, CR, Mylne, A., Dedet, J-P, Gállego, M, Ballart, C, Gramiccia, M, Gradoni, L., Molina, R., Gálvez, R., Morrillas-Márquez, F., Báron-López, S., Alves-Pires, C., **Afonso, M.O.**, Ready, P. & Cox, J. (2011). Predicting the distribution of canine leishmaniasis in western Europe based on environmental variables. *Parasitology*, 138: 1878-1891.
doi:10.1017/S0031182011001148X

Maia, C., Maurício, I., Campino, L., Cardoso, L., **Afonso, M.O.**, Neves, R. & Villa de Brito, T. (2011). ONLeish Observatório Nacional das Leishmanioses. Primeiro Relatório regular da LEISHnet. *Veterinary Medicine (versão portuguesa)*: 22-26.

Pereira, M., **Afonso, M.O.**, Nave, A., Sousa, M.C. (2010). Identificação de *Phlebotomus sergenti* Parrot, 1917 no concelho de Coimbra, Portugal. *Acta Parasitológica Portuguesa*, 17 (10): 45-49.

Franco, F.A.L., Morillas-Márquez, F., Barón, S.D., Morales-Yuste, M., Gálvez, R., Diaz, V., Pesson, B., Alves-Pires, C., Depaquit, J., Molina, R., **Afonso, M.O.**, Gállego, M., Guernaoui, S. & Bounamous, A. (2010). Genetic structure of *Phlebotomus (Larrousius) ariasi* populations, the vector of *Leishmania infantum* in the western Mediterranean: Epidemiological implications. *International Journal for Parasitology*, 40: 1335-1346.

Dyer, N.A., Furtado, A., Cano, J., Ferreira, F., **Afonso, M.O.**, Ndong-Mabale, N., Ndong-Asumo, P., Centeno-Lima, S., Benito, A., Weetman, D., Donnelly, M.J. & Pinto, J. (2009). Evidence for a discrete evolutionary lineage within Equatorial Guinea suggests that the tsetse fly *Glossina palpalis palpalis* exists as a species complex. *Molecular Ecology*, 18: 3268-3282.

Gomes, J., Leão, C., Ferreira, F., **Afonso, M.O.**, Santos, C., Josenando, T., Seixas, J., Atouguia, J. & Centeno-Lima, S. (2009). Molecular identification of *T. brucei* s.l. in tsetse flies after long-term permanence in fields traps. *J Infect Dev Ctries*, 3 (9): 735-738.

Maia, C., **Afonso, M.O.**, Neto, L., Dionísio, L. & Campino, L. (2009). Molecular detection of *Leishmania infantum* in naturally infected *Phlebotomus perniciosus* from Algarve Region, Portugal. *J Vector Borne Dis*, 46: 268-272.

Afonso, M.O. & Santos Grácio, A.J. (2008). Mosca Tsé-tsé, Nagana e Doença do Sono: Factos Históricos, Contribuição Portuguesa para o Estudo e Combate e Factores de Recrudescência. *Acta Parasitológica Portuguesa*, 15 (1/2): 1-16.

Afonso, M.O. & Alves-Pires, C. (2008). Bioecologia dos vectores. In: *Leishmaniose canina*. G. Santos-Gomes & I.P. Fonseca (Ed.), Chaves Ferreira - Publicações S.A. Lisboa, pp 27:40.

Ferreira, F., Cano, J., Furtado, A., Ndong-Mabale, N., Ndong-Asumu, P., Benito, A., Pinto, J., **Afonso, M.O.**, Seixas, J., Atouguia, J. & Centeno-Lima, S. (2008). An alternative approach to detect *Trypanosoma* in *Glossina* (Diptera, Glossinidae) without dissection. *J Infect Developing Countries*, 2 (1): 63-67.

Alves-Pires, C., Campino, L., Janz, J.G. & **Afonso, M.O.** (2008). Os flebótomos de Portugal. XIV. Os vectores de Leishmanioses no foco zoonótico do Sotavento Algarvio. *Acta Parasitológica Portuguesa*, 15 (1/2): 39-52.

Afonso, M.O., Brazil, R.P. & Alves-Pires, C. (2007). Carlos França in the Science (1877-1926). *Acta Parasitológica Portuguesa*, 14: 23-26.

Neves, R., Cardoso, L., **Afonso, M.O.**, Campino, L. (2007). Leishmaniose canina em Portugal Continental – o que sabem os proprietários de cães acerca desta zoonose parasitária. *Veterinary Medicine (Edição Portuguesa)*, 9 (52): 47-54.

Afonso, M.O., Cardoso, L., Anastácio, S., Janz, J.G., Semião-Santos, S., Sousa, S., Rodrigues, J., Rodrigues, M., & Alves-Pires, C. (2007). The Phlebotomine sand flies of Portugal. XI. Ecology of the Leishmaniosis vectors in Alijó Municipality, Alto Douro Region, 2001.). *Acta Parasitológica Portuguesa*, 14: 19-22.

Cortes, S., **Afonso, M.O.**, Alves-Pires, C. & Campino, L. (2007). Stray dogs and Leishmaniasis in urban areas, Portugal. *Emerging Infectious Diseases*, 13 (9): 1431-1432.

Campino, L., Pratlong, F., Abranches, P., Rioux, J.A., Santos-Gomes, G., Alves-Pires, C., Cortes, S., Ramada, J., Cristóvão, J.M., **Afonso, M.O.** & Dedet, J.P. (2006). Leishmaniasis in Portugal: enzyme

polymorphism of *Leishmania infantum* based on the identification of 213 strains. *Trop.Med. Int. Health*, 11: 1708-1714.

Calheiros, J.M, Casimiro, E., Almeida, A.P.G., Alves-Pires, C., Collares Pereira, M., Cardoso, M.F., Santos-Silva, M., **Afonso, M.O.**, Sousa, R. (2006). 6 - Saúde Humana e Implicações para o Turismo. Pp.233-270. In F.D. Santos, & Miranda, P., Eds, *Alterações Climáticas em Portugal: Cenários, Impactos e Medidas de Adaptação. Projecto SIAM II*, Gradiva, Lisboa, Portugal.

Miranda, P.M.A., Moita, R., Casimiro, E., Calheiros, J.M., Sousa, C., Alves-Pires, C., Collares Pereira, M., Cardoso, M., **Afonso, M.O.**, Almeida, P., Nogueira, P., Sousa, R. (2006). 10 – Estudo de Caso da Região do Sado. Saúde Humana. Pp. 451-462. In F.D. Santos, & Miranda, P., Eds, *Alterações Climáticas em Portugal: Cenários, Impactos e Medidas de Adaptação. Projecto SIAM II*, Gradiva, Lisboa, Portugal.

Afonso, M.O., Campino, L., Cortes, S., Alves-Pires, C. (2005). The phlebotomine sand flies of Portugal. XIII. Occurrence of *Phlebotomus sergenti* Parrot, 1917 in the Arrabida leishmaniasis focus. *Parasite*, 12 (1): 69-72.

Cardoso, L., Rodrigues, M., Santos, H., Schoone, G.J., Carreta, P., Varejão, E., van Benthem, B., **Afonso, M.O.**, Alves-Pires, C., Semião-Santos, S.J., Rodrigues, J., Schallig, H.D. (2004). Sero epidemiological study of canine *Leishmania* spp. infection in the municipality of Alijó (Alto Douro, Portugal). *Vet Parasitol*, 121 (1-2): 21-32.

Alves-Pires, C., **Afonso, M.O.**, Janz, J.G. & Semião-Santos, S.J. (2004). The phlebotomine sand flies of Portugal. XII. The phlebotomine of the Évora leishmaniasis focus (1999-2000). *Acta Parasitológica Portuguesa*, 11 (1-2): 41-45.

Araújo, P., Escada, P., Alves-Pires, C., **Afonso, M.O.** & Silva, M. (2003). Human aural myiasis: first reported case in Portugal. *Rev Port ORL*, 41 (2): 197-200.

Alves-Pires, C., Campino, L., **Afonso, M.O.**, Santos-Gomes G., Dedet, & J.-P., Pratlong, F. (2001). Les phlébotomes du Portugal X- Infestation naturelle de *Phlebotomus perniciosus* par *Leishmania infantum* MON-1 en Algarve. *Parasite*, 8: 374-375.