

RINSTITUTE OF HYGIENE AND TROPICAL MEDICINE

RICARDO MANUEL SOARES PARREIRA

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*Curriculum Vitae*

Lisbon, February 2018



## 1. Personal data

**Full Name:** Ricardo Manuel Soares Parreira

**Name under which you publish:** Ricardo Parreira

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**National of:** Portugal

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## 2. Academic degrees

**Year:** 1992

**Degree:** LICENCIATURA

**Final grade:** 18 (in 20)

**Degree granting institution:** Universidade de Lisboa

**School/College/Campus:** Faculdade de Ciências

**Scientific area:** Biology

**Number of curricular years:** 5

**Program title:** Biologia Vegetal Aplicada (Pant Applied Biology)

**Year:** 1996

**Degree:** PhD

**Final grade:** Très honorable avec les félicitations du juri

**Degree granting institution:** Université Paris XI

**Thesis title:** Caractérisation du mécanisme de résistance aux phages par infection abortive codé par le gène *abiB* de *Lactococcus lactis* subsp. *lactis*

**Supervisor:** Stanislas Dusko Ehrlich and Marie-Christine Chopin

**Scientific area:** Microbial Genetics and Physiology

## 3. Previous activity and current status

June 1998 to the present day	Assistant Professor	Institute of Hygiene and Tropical Medicine (New Lisbon University)
05-5-1997 a 03-5-1998	Invited Assistant	Institute of Hygiene and Tropical Medicine (New Lisbon University)
July 1996 - May 1997	Post-Doc invited researcher	Centro de Genética e Biologia Molecular (Universidade de Lisboa)
November 1991 - June 1996	PhD student	Institut National de la Recherche Agronomique, Dpt Génétique Microbienne, centre de Jouy-en-Josas

## 4. Area of scientific activity

1. Molecular epidemiology of viral infections (special interest on arboviruses).
2. Analysis of virus/host interactions in cell culture: study of exclusion to superinfection type phenomena.
3. Use of metagenomics/sequence-directed amplification approaches to the study of viral diversity in arthropods.

4. Characterization of cytopathic effects induced on insect cells by negevirus.
5. Explore the use of bioinformatics for virus genomic complexity, population structure and evolution.

## 5. Present research interest

### Domain of specialization

Virology, bioinformatics, molecular phylogenetics, molecular microbiology, molecular epidemiology.

### Current research interests

Molecular Epidemiology of arboviruses, identification and genomic characterization of new arthropod viruses using metagenomics, analysis of the replication of insect-specific and other arthropod (ticks and sand flies) borne viruses in cell culture, use of phylogenetic reconstruction for the analysis of pathogenic vs non-pathogenic arthropod-borne viruses.

### Other professional interests/activities

General bioinformatics, phylogenetic analysis of bacteria and parasites, heterologous expression of proteins in *Escherichia coli*, international teaching cooperation with Portuguese-speaking African countries.

## 6. Experience as scientific adviser

### 6.1. Co-supervision of PhD Thesis:

1. **Carlos São-José** - Genome Analysis and Gene Expression in Oenophage fOg44-Evidence for a New Strategy of Bacteriophage-Induced Host Lysis. Thesis presented to the Faculty of Sciences of the University of Lisbon in 2002.
2. **Susana Santos** - Lysogeny, pseudolisogeny and lysogenic conversion in *Oenococcus oeni*: fundamental aspects and applications. Thesis presented to the Faculty of Sciences of the University of Lisbon in 2006.
3. **Maria Carolina Guerreiro-Pereira** - The mechanism of expression and activation of bacteriophage encoded signal peptide-bearing muramidases. Contribution of the phage holin to bacterial lysis. Thesis presented to the Faculty of Sciences of the University of Lisbon in 2006.
4. **Sílvia Beato** - Contribution to the genetic analysis of *Echinococcus granulosus* strains circulating in Portugal. Thesis Presented to IHMT/ NOVA University Lisbon in 2016.
5. **André Pereira** – Reservoirs of zoonotic Leishmaniosis: the role played by domestic cats”. Thesis plan was initiated in 2016.

### 6.2. Supervisor/Co-supervisor of Masters theses:

1. **Daniela Lobão** - Characterization of the 5'-Long Terminal Repeats of the Human Immunodeficiency Virus type 1, subtype C, circulating in Mozambique. Masters in Medical Microbiology (UNL) concluded in 2006.
2. **Ferdinando Bernardino Freitas** - A new multiple-hybridization assay for the analysis of Human Immunodeficiency Virus type 1 (HIV-1) subtype B, G and CRF02\_AG and CRF14\_BG circulating recombinants forms found among users of intravenous injecting drugs. Masters in Medical Microbiology (UNL); concluded in 2010.
3. **Cristina Branco** - Characterization of GBV-C/HGV virus strains circulating in the metropolitan area of Lisbon, Portugal. Masters in Medical Biosciences (IHMT/UNL), concluded in 2010.
4. **Sónia Cristina Costa** - Flavivirus in mosquitoes from southern Portugal, 2009-2010. Masters in Medical Parasitology (IHMT/UNL), concluded in 2011.
5. **Sandra Marques** - Expression, in *Escherichia coli*, of antigens of the Cell-Fusing Agent Virus as protein-fusions. Masters in Medical Microbiology (UNL), concluded in 2012.
6. **Daniela Fernandes** – Genome sequencing and analysis of an insect-specific flavivirus isolated from *Ochlerotatus caspius* mosquitoes. Masters in Medical Biosciences (IHMT/UNL), concluded in 2013.
7. **Sara Carapeta** – Identification of Negevirus in Mosquitoes from Southern Portugal and Analysis of their Replication. Masters in Medical Biosciences (IHMT/UNL), concluded in 2015.
8. **Ana Sofia de Almeida Costa Fonseca e Sousa** – Genetic characterization of *Giardia duodenalis* in dogs from the Lisbon metropolitan area. Masters in Veterinary Medicine (Univ. Lusófona), concluded in 2016.

9. **André Duarte Belchior Pereira** – Molecular detection of bacteria, protozoa and viruses in ticks collected from domestic and sylvatic animals from the Centre and Southern Continental Portugal. Masters in Veterinary Medicine (Univ. Lusófona), concluded in 2016.
10. **Lúcia Maria Alves Figueira** - Preliminary characterization of the genomes of tick-borne viruses using sequence-dependent and sequence-independent amplification methods. Masters in Medical Biosciences (IHMT/UNL), concluded in 2016.
11. **Catarina Sofia Fino Caseiro** – Heterologous expression of Zika virus antigens in *Escherichia coli*. Masters in Medical Microbiology (UNL), concluded in 2018.

### 6.3. Teaching experience

**Regular participation in the teaching staff of the Masters Courses in Medical Microbiology** (Curricular Units of Medical Virology, Prevention and Therapeutics of Infectious Diseases, Molecular Epidemiology of HIV/**Curricular Unit coordinator**), Biomedical Sciences (Curricular Units of Biosafety and Experimental Manipulation, General Microbiology, Bioinformatics/**Curricular Unit Coordinator**, Genomics and Proteomics Applied to Infectious Diseases/**Curricular Unit Coordinator**, HIV and AIDS), and Medical Parasitology (Dengue, Yellow Fever and other Mosquito-Borne Arboviroses), and the **PhD Programs** in Biomedical Sciences (Computational Biology and Bioinformatics, Molecular Epidemiology of Infectious and Parasitic Diseases, Experimental Design and Thesis Project/**Curricular Unit Coordinator**), Tropical Diseases and Global Health (Impact of Diseases and their Determinants), and Genetics and Infectious Diseases (New Concepts in Parasitology and Microbiology, and In vitro and In vivo Laboratory Experimentation).

**Teaching experience in Africa** include participation in the HIV/AIDS module of the Molecular Biology Applied to Human and Veterinary Infectious Diseases Course, held at Universidade Eduardo Mondlane (Maputo, Mozambique, 2003), teaching of the Virology module of the Integration of Health-Care, Clinical and laboratory Data in the Management of TB/HIV/STI, held at the Microbiology Laboratory of the Instituto Nacional de Saúde Pública (Luanda, Angola, 2008), teaching of the Biosafety and Transport of Biological Samples that took place at the Hospital da Região Sanitária de Santiago Norte (Ilha de Santiago, Cape Verde, 2010), organization and teaching of the Detection and Characterization of Dengue in Cape Verde: Diagnosis and Identification of Viruses in their Vectors, held at Centro de Saúde da Achadinha (Praia, Cape Verde, 2012), teaching of the Bioinformatics Course held at Universidade de Cabo Verde (Praia, Cape Verde, 2017).

### 6.4. Member of PhD thesis Juris

RP has participated as a **Member** of **17 PhD dissertation Juris** and been the **Main Opponent in 9 of them**.

### 7. Participation in R&D projects

1. Lysogeny and Bacteriophage resistance in *Leuconostoc oenos* (PBIC/BIO/2041/95). **Team member** between 1996 and 1997.
2. Export and targeting of a novel class of bacteriophage peptidoglycan hydrolases, synthesized as signal peptide-bearing precursors (POCTI/BME/36157/99). **Member of this project's team** between 2000 and 2003.
3. Gene Expression and Functional Characterization of Bacteriophage Products: an Approach to the Development of Gene Transfer Systems for *Oenococcus oeni* and to the control of lactic acid bacteria in wine (POCTI/BIO/43621/1999). **Team member** between 2001 and 2004.
4. Molecular epidemiology of arbovirus in the mosquito populations in Portugal (POCTI/ESP/35775/99). **Team member** between 2000 and 2004.
5. Molecular analysis of an atypical strategy of lysis by phages, providing new insight on bacteriophage evolution and the triggering of bacterial autolysis (POCTI/BIO/41872/2001). **Team member** between 2002 and 2006.
6. Natural susceptibility of HIV-1 subtype G to protease inhibitors: genotypic and phenotypic assays (POCTI/ESP/42524/2001). **Team member** between 2002 and 2005.
7. A new assay to monitor HIV-2 antiretroviral susceptibility (POCTI/BIO/42526/2001). **Principal Investigator and team member** between 2004 and 2007.

8. Genetic characterization of human immunodeficiency virus type 1 circulating in the city of Beira, Mozambique. **Project co-coordinator and team member** (financial support granted by the GlaxoSmithKline Health Sciences foundation) between 2004 and 2006.
9. Phylogenetic and preliminary biological characterization of simian immunodeficiency virus (SIV) strains from mandrills (*Mandrillus sphinx*) housed at the Lisbon Zoo (PTDC/CVT/67905/2006). **Team member** between 2007 and 2010.
10. MALVEO – Vulnerability Mapping to Malaria Vector from Earth Observation Data: *Anopheles atroparvus* density mapping under climate scenarios for Southern Portugal (PTDC/CLI/67910/2006). **Team member** from 2010 to 2013.
11. Dengue in Madeira Archipelago: risk assessment for the emergence of *Aedes aegypti* mediated arboviroses and tools for vector control (PTDC/SAU-EPI/115853/2009). **Team member** from 2012 to 2014 onwards.
12. Zikalliance: A Global Alliance for Zika Control and Prevention (ZIKAlliance project has received funding from the European Union's Horizon 2020 Research and Innovation Program under Grant Agreement N.734548). **Team member** from 2016 onwards.

## 8. Published works

### 8.1. PhD Thesis

Caractérisation du mécanisme de résistance aux phages par infection abortive codé par le gène *abiB* de *Lactococcus lactis* subsp. *lactis* (1996). Université Paris XI (France).

### 8.2. Book chapters

1. Esteves A, **Parreira R.** 2014. Togavírus e Flavivírus, In Microbiologia Médica. A.M. Silvestre; H. Barroso, N. Taveira (Eds.), Lidel, Lisboa.
2. Esteves A, **Parreira R.** 2014. Bunyavírus e Arenavírus, In Microbiologia Médica. A.M. Silvestre; H. Barroso, N. Taveira (Eds.), Lidel, Lisboa.
3. **Parreira R,** Piedade J. 2010. Vírus. In Microbiologia. W.F. Canas-Ferreira, J.C.F. de Sousa & N. Lima (Eds.), Lidel, Lisboa. pp:109129
4. **Parreira R.** 2002. Bacteriófagos in Microbiologia, vol. III. Canas-Ferreira, W.F. & J.C.F. de Sousa (Eds.), Lidel, Lisboa.
5. São-José C., **Parreira R.** and Santos M.A. 2003. Triggering of host-cell lysis by double- stranded DNA bacteriophages: fundamental concepts, recent developments and emerging applications. In Recent Research Developments in Bacteriology, Vol. 1, Ed. S.G. Pandalai, Research Signpost, Transworld Research Network, Trivandrum, India.
6. São José C., Nascimento J., **Parreira R.** and Santos M.A. 2007. Release of Progeny Phages from Infected Cells. In Bacteriophage: Genetics and Molecular Biology, Ed. S. McGrath and D. van Sinderen: Caister Academic Press, Norwich, UK.

### 8.3. Papers in Scientific Journals

1. Bidnenko E., Valyasevi R., Cluzel P.-J., **Parreira R.**, Hillier A., Gautier M., Anba J., Ehrlich S.D. e Chopin M.-C. 1992. Amélioration de la résistance des lactocoques aux bactériophages. Le Lait, 73:199-206.
2. **Parreira R.**, Ehrlich S.D. e Chopin M.-C. 1996. Dramatic decay of phage transcripts in lactococcal cells carrying the abortive infection determinant *AbiB*. Mol. Microbiol., 19:221-230.
3. **Parreira R.**, Valyasevi R, Lerayer A.L.S., Ehrlich S.D. e Chopin M.-C. 1996. Genetic organization and transcription of a late expressed region of a *Lactococcus lactis* phage. J. Bacteriol. 178:6158-6165.
4. **Parreira R.**, São-José C., Isidro A., Domingues S., Vieira G. e Santos M.A. 1999. Gene organization in a central DNA fragment of *Oenococcus oeni* bacteriophage fOg44 encoding lytic, integrative and non-essential functions. Gene, 226:83-93.
5. **Parreira R.**, Esteves A., Santos C., Piedade J., Venenno T. e Canas-Ferreira W.F. 2000. Genetic variability of human immunodeficiency virus type 2 C2V3 region within and between individuals from Bissau, Guinea-Bissau, West Africa. AIDS Res. Hum. Retroviruses. 16:1307-1312.
6. São-José C., **Parreira R.**, Vieira G.A. e Santos M.A. 2000. The N-terminal region of the *Oenococcus oeni* bacteriophage fOg44 endolysin behaves as a bona fide signal peptide in *E. coli* and as a cis-inhibitory element, preventing lytic activity on oenococcal cells. J. Bacteriol. 182:5823-5831.

7. Esteves A., **Parreira R.**, Piedade J., Venenno T. e Canas-Ferreira W.F. 2000. Genetic characterization of HIV type 1 and type 2 from Bissau, Guinea-Bissau (West Africa). *Virus Research* 68:51-61.
8. Piedade J., Venenno T., Prieto E., Albuquerque R., Esteves A., **Parreira R.** e Canas-Ferreira W.F. 2000. Longstanding presence of HIV-2 infection in Guinea-Bissau (West Africa). *Acta Tropica*. 76:119-124.
9. Esteves A., Piedade J., Santos C., Venenno T., Canas-Ferreira W.F. and **Parreira R.** 2001. Follow-up study of HIV-2 intrahost variability reveals discontinuous evolution of C2V3 sequences. *AIDS Res. Hum. Retroviruses*. 17:253-256.
10. Esteves A., **Parreira R.**, Venenno T., Franco M., Piedade J., Germano de Sousa J. e Canas-Ferreira W.F. 2002. Molecular epidemiology of HIV-1 infection in Portugal: high prevalence of non-B subtypes. *AIDS Res. Hum. Retroviruses*. 18:313-326.
11. Esteves A., **Parreira R.**, Piedade J., Venenno T., Franco M., Germano de Sousa J., Patrício L., Brum P., Costa A. e Canas-Ferreira W.F. (2003). Spreading of HIV-1 subtype G and *envB/gagG* recombinant strains among injecting drug users (IDUs) in Lisbon, Portugal. *AIDS Res. Hum. Retroviruses*. 19:511-517.
12. Centeno-Lima S., do Rosário V.E., **Parreira R.**, Maria A.J., Freudenthal A.M., Nijhof A.M. e Jongejan F. 2003. A fatal case of human babesiosis in Portugal: molecular and phylogenetic analysis. *Tropical Medicine and International Health*. 8:760-764.
13. **Parreira R.**, Santos M., Piedade J. and Esteves A. 2004. Natural polymorphism of HIV-1 subtype G protease and cleavage sites. *AIDS* 18:1345-1346.
14. **Parreira R.**, Venenno T., Piedade J., Prieto E., Exposto F. and Esteves A. 2004. Prevalence and partial characterization of genotypes of the human TT virus infecting Portuguese individuals. *Acta Tropica* 91:197-203.
15. São-José C., Santos S., Nascimento J., Brito-Maduro A.G., **Parreira R.** and Santos M.A. 2004. Diversity in the lysis-integration region of oenophage genomes and evidence for multiple tRNA loci, as targets for prophage integration in *Oenococcus oeni*. *Virology* 325:82-95.
16. Brígido C., Pereira da Fonseca I., **Parreira R.**, Fazendeiro M.I., do Rosário V.E., and Centeno-Lima S. 2004 Molecular and phylogenetic characterization of *Theileria* parasites in autochthonous bovines (Mirandesa breed) in Portugal. *Vet Parasitol*. 123:1723.
17. Almeida A.P.G., Galão R.P., Novo M.T., Sousa C.A., **Parreira R.**, Rodrigues J.C., Pinto J. and Carvalho L. 2005. Update on the distribution of some mosquito (Diptera: Culicidae) species in Portugal. *European Mosquito Bulletin* 19:20-25.
18. **Parreira R.**, Pádua E., Piedade J., Venenno T., Paixão M.T. and Esteves A. 2005. Genetic analysis of human immunodeficiency virus type 1 in Portugal: subtyping, identification of mosaic genes, and amino acid sequence analysis. *J. Med. Virol.* 77:8-16.
19. Esteves A., Almeida A.P.G., Galão R.P., **Parreira R.**, Piedade J., Rodrigues J. C., Sousa C.A. and Novo M. T. 2005. West Nile virus in Southern Portugal, 2004. *Vector-Borne Zoonotic Dis.* 5:410-413.
20. **Parreira R.**, Piedade J., Domingues C., Lobão D., Santos M., Venenno T., Baptista J.L., Mussa S.A.S., Barreto A.T.L., Baptista A.J. and Esteves A. 2006. Genetic characterization of human immunodeficiency virus type 1 from Beira, Mozambique. *Microbes Infect.* 8:2442-2451.
21. **Parreira R.**, Monteiro F., Pádua E., Piedade J., Venenno T., Paixão M.T. and Esteves A. 2006. Natural polymorphisms of HIV-2 pol sequences from drug naïve individuals. *AIDS Res. Hum. Retroviruses*. 22:1178-1182.
22. **Parreira R.**, Severino P., Freitas F., Piedade J., Almeida A.P.G. and Esteves A. 2007. Two distinct introductions of the West Nile virus in Portugal disclosed by phylogenetic analysis of genomic sequences. *Vector-Borne Zoonotic Dis.* 7:344-352.
23. Almeida A.P.G., Galão R.P., Sousa C.A., Novo M.T., **Parreira R.**, Pinto J., Piedade J. and Esteves A. 2008. Potential mosquito vectors of arboviruses in Portugal: species, distribution, abundance and West Nile infection. *Trans R Soc Trop Med Hyg.* 102:823832.
24. Santos-Costa Q., **Parreira R.**, Moniz-Pereira J. and Azevedo-Pereira J.M. 2009. Molecular characterization of the *env* gene of two CCR5/CXCR4-independent human immunodeficiency 2 primary isolates. *J. Med. Virol.* 81: 1869-1881.
25. Pádua E., **Parreira R.**, Tendeiro R., Nunes B., Castela J., Soares I., Mouzinho A., Reis E. and Paixão M.T. 2009. Potential impact of viral load and genetic makeup of hiv-1 on mother- to-child transmission: characterization of *env-C2V3C3* and *nef* sequences. *AIDS Res. Hum. Retroviruses* 25:1171-1177.
26. Branco C., Esteves A., Piedade J. and **Parreira R.** 2010. A new genotype 2 subcluster identified among GBV-C strains circulating in the Lisbon metropolitan area of Portugal. *J. Med. Virol.* 82:452-459.
27. Beato S., **Parreira R.**, Calado M. and Grácio M.A. 2010. Apparent dominance of the G1-G3 genetic cluster of *Echinococcus granulosus* strains in the central inland region of Portugal. *Parasitol. Int.* 59: 638-642.

28. Calado R., Rocha M.R., **Parreira R.**, Piedade J., Venenno M.T. and Esteves A. 2011. Hepatitis C subtypes circulating among intravenous drug users in Lisbon, Portugal. *J. Med. Virol.* 83:608-615.
29. Ferreira F.S., Pereira-Baltasar P., **Parreira R.**, Padre L., Vilhena M., Távora Tavira L., Atouguia J. and Centeno-Lima S. 2011. Intestinal parasites in dogs and cats from the district of Évora, Portugal. *Vet. Parasitol.* 179: 242-245.
30. **Parreira R.**, Branco C., Piedade J. and Esteves A. 2012. GB virus C (GBV-C) evolutionary patterns revealed by analyses of reference genomes, E2 and NS5B sequences amplified from viral strains circulating in the Lisbon area (Portugal). *Infect Genet Evol.* 12: 86-93.
31. **Parreira R.**, Cook S., Lopes A., de Matos A.P., de Almeida A.P., Piedade J., and Esteves A. 2012. Genetic characterization of an insect-specific flavivirus isolated from *Culex theileri* mosquitoes collected in southern Portugal. *Virus Res.* 167:152-161.
32. Ferreira F.S., Centeno-Lima S., Gomes J., Rosa F., Rosado V., **Parreira R.**, Cravo L., Atouguia J., and Távora Tavira L. 2012. Molecular characterization of *Giardia duodenalis* in children from the Cufada Lagoon Natural Park, Guinea-Bissau. *Parasitol Res.* 111:2173-2177.
33. Gomes B., **Parreira R.**, Sousa C.A., Novo M.T., Almeida A.P., Donnelly M.J., and Pinto J. 2012. The *Culex pipiens* complex in continental Portugal: distribution and genetic structure. *J Am Mosq Control Assoc.* 28(4 Suppl):75-80.
34. Freitas F.B., Esteves A., Piedade J., and **Parreira R.** 2013. Novel multi-region hybridization assay for the identification of the most prevalent genetic forms of the human immunodeficiency virus type 1 circulating in Portugal. *AIDS Res Hum Retroviruses.* 29:318-328.
35. Beato S., **Parreira R.**, Roque C., Gonçalves M., Silva L., Maurelli M.P., Cringoli G., and Grácio M.A. 2013. *Echinococcus granulosus* in Portugal: The first report of the G7 genotype in cattle. *Vet. Parasitol.* 15;198(1-2):235-239.
36. Ferreira D.D., Cook S., Lopes A., de Matos A.P., Esteves A., Abecasis A., de Almeida A.P., Piedade J., and **Parreira R.** 2013. Characterization of an insect-specific flavivirus (OCFVPT) co-isolated from *Ochlerotatus caspius* collected in southern Portugal along with a putative new Negev-like virus. *Virus Genes* 47(3):532-45.
37. **Parreira R.**, Centeno-Lima S., Lopes A., Portugal-Calisto D., Constantino A., Nina J. 2014. Dengue virus serotype 4 and chikungunya virus coinfection in a traveler returning from Luanda, Angola, January 2014. *Euro Surveill.* 19(10). pii: 20730.
38. **Parreira R.**, Sousa C.A. 2015. Dengue fever in Europe: could there be an epidemic in the future? *Expert Rev Anti Infect Ther.* 13(1):29-40.
39. Maia C., **Parreira R.**, Cristóvão J., 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* 144C:1-8.
40. Carapeta S., do Bem B., McGuinness J., Esteves A., Abecasis A., Lopes A., de Matos A.P., Piedade J., de Almeida A.P., **Parreira R.** 2015. Negev viruses found in multiple species of mosquitoes from southern Portugal: Isolation, genetic diversity, and replication in insect cell culture. *Virology.* 483:318-328.
41. Nunes M., **Parreira R.**, Lopes N., Maia C., Carreira T., Sousa C., Faria S., Campino L., Vieira M.L. 2015. Molecular Identification of *Borrelia miyamotoi* in *Ixodes ricinus* from Portugal. *Vector Borne Zoonotic Dis.* 15(8):515-517.
42. Mixão V., Bravo Barriga D., **Parreira R.**, Novo M.T., Sousa C.A., Frontera E., Venter M., Braack L., Almeida A.P. 2016. Comparative morphological and molecular analysis confirms the presence of the West Nile virus mosquito vector, *Culex univittatus*, in the Iberian Peninsula. *Parasit Vectors.* 9(1):601.
43. Bravo-Barriga D., **Parreira R.**, Maia C., Afonso M.O., Blanco-Ciudad J., Serrano F.J., Pérez-Martín J.E., Gómez-Gordo L., Campino L., Reina D., Frontera E. 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 Trop.* 164:414-424.
44. Fernanda Estofotele C., Terzian A.C., **Parreira R.**, Esteves A., Hardman L., Greque G.V., Rahal P., Nogueira M.L. 2016. Clinical and laboratory profile of Zika virus infection in dengue suspected patients: A case series. *J Clin Virol.* 81:25-30.
45. Bravo-Barriga D., **Parreira R.**, Almeida A.P., Calado M., Blanco-Ciudad J., Serrano-Aguilera F.J., Pérez-Martín J.E., Sánchez-Peinado J., Pinto J., Reina D., Frontera E. 2016. *Culex pipiens* as a potential vector for transmission of *Dirofilaria immitis* and other unclassified Filarioidea in Southwest Spain. *Vet Parasitol.* 223:173-80.
46. Pereira A., **Parreira R.**, Nunes M., Casadinho A., Vieira M.L., Campino L., Maia C. 2016. Molecular detection of tick-borne bacteria and protozoa in cervids and wild boars from Portugal. *Parasit Vectors.* 9(1):251.

47. Nunes M., **Parreira R.**, Maia C., Lopes N., Fingerle V., Vieira M.L. 2016. Molecular identification of *Borrelia* genus in questing hard ticks from Portugal: Phylogenetic characterization of two novel Relapsing Fever-like *Borrelia* sp. *Infect Genet Evol.* 40:266-74.
48. Bravo-Barriga D., **Parreira R.**, Maia C., Blanco-Ciudad J., Afonso M.O., Frontera E., Campino L., Pérez-Martín J.E., Serrano Aguilera F.J., Reina D. 2016. First molecular detection of *Leishmania tarentolae*-like DNA in *Sergentomyia minuta* in Spain. *Parasitol Res.* 115(3):1339-44.
49. Pereira A., Figueira L., Nunes M., Esteves A., Cotão A.J., Vieira M.L., Maia C., Campino L., **Parreira R.** 2017. Multiple Phlebovirus (Bunyaviridae) genetic groups detected in Rhipicephalus, Hyalomma and Dermacentor ticks from southern Portugal. *Ticks Tick Borne Dis.* 8(1):45-52.
50. Nunes M., **Parreira R.**, Carreira T., Inácio J., Vieira M.L. 2018. Development and evaluation of a two-step multiplex TaqMan real-time PCR assay for detection/quantification of different genospecies of *Borrelia burgdorferi* sensu lato. *Ticks Tick Borne Dis.* 9(2):176-182.
51. Pereira A., **Parreira R.**, Cotão A.J., Nunes M., Vieira M.L., Azevedo F., Campino L., Maia C. 2018. Tick-borne bacteria and protozoa detected in ticks collected from domestic animals and wildlife in central and southern Portugal. *Ticks Tick Borne Dis.* 9(2):225-234.
52. Colombo TE., Terzian A.C.B., Júnior J.P.A., **Parreira R.**, Cabrera E.M.S., Santos I.N.P.D., Reis A.F.N., Costa F.R., Cruz L.E.A.A., Rombola P.L., Nogueira M.L.S.. 2018. Zika detection: comparison of methodologies. *Braz J Microbiol.* 49(1):144-147.
53. Cerejo .P, Santos-Costa Q., Calado M., Espírito-Santo M., **Parreira R.**, Azevedo-Pereira J.M. 2018. Characterization of Envelope Surface Glycoprotein from HIV-2 Primary Isolates with Different Coreceptor Usage Profile. *AIDS Res Hum Retroviruses* (in press).

**Over 120 works** have been presented in Conferences/Scientific meetings either as posters or oral communications.

### **9. Languages (Reading – Writing - Conversation)**

Portuguese - Very good - Very good - Very good  
 English - Very good - Very good - Very good  
 French - Very good - Very good - Very good  
 Spanish – Good – Basic - Good