INSTITUTO DE HIGIENE E
MEDICINA TROPICAL
DESDE 1902

NAME: **MIGUEL VIVEIROS BETTENCOURT**
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IHMT ≈ NOVA

SYNOPSIS:

Professor in Biomedical Sciences and Medical Microbiology, Vice-Director of the Institute of Hygiene and Tropical Medicine [https://www.ihmt.unl.pt/], Scientific Coordinator of the Research Unit Global Health and Tropical Medicine (GHTM) and Vice-Coordinator of the Associate Laboratory in Translation and Innovation Towards Global Health, LA-REAL (UID/04413/2020 and LA/P/0117/2020) – [https://ghtm.ihmt.unl.pt/]. Scientific Director of the UNESCO Center Ciência LP - "International Centre for Advanced Training of Scientists from Portuguese Speaking Countries" [https://www.ciencialp.pt/].
Devoted to the early diagnosis and molecular epidemiology of tuberculosis (TB) and new therapeutics for multidrug resistant TB (MDRTB) and extensively drug-resistant TB (XDRTB). Specialist in the diagnosis of antibiotic resistance in bacteria by phenotypic and genotypic assays. Studied, in the last 20 years, the contribution of the efflux-pumps and membrane transporters to bacterial multidrug resistant phenotypes especially in mycobacteria, and how we can prevent, reverse or reduce the level of resistance and recover the effectiveness of the antibiotics to which the bacteria became resistant by the use of adjuvant compounds. Interested in the molecular biology and epidemiology of mycobacteria, nanotechnology, drug design and development, immunology, molecular epidemiology and whole genome sequencing of TB focused on the early diagnosis of multidrug/extensively drug resistant TB and other antibiotic resistant bacterial infections.

ACADEMIC QUALIFICATIONS:

2012 Habilitation in Biomedical Sciences (Speciality Microbiology) - (Agregação em Ciências Biomédicas – Especialidade Microbiologia) from Instituto de Higiene e Medicina Tropical / Universidade NOVA de Lisboa.

2001 PhD in Biology (Microbial Genetics) from Faculdade de Ciências da Universidade de Lisboa

1995 Master of Science in Biotechnology (Biochemical Engineering) from Instituto Superior Técnico da Universidade Técnica de Lisboa (IST/UTL)

1991 Degree in Biology from Faculdade de Ciências da Universidade de Lisboa (FC/UL)

APPOINTMENTS AND WORKING ACHIEVEMENTS:

October 2019 to date - Vice-Director of Institute of Higiene and Tropical Medicine of Universidade NOVA de Lisboa **[** https://www.ihmt.unl.pt/organizacao/ **]**

January 2020 to date - Scientific Coordinator of the R&D Center Global Health and Tropical Medicine of IHMT/NOVA (UID/04413/2020) **[** https://ghtm.ihmt.unl.pt/ghtm/ **] .**

October 2021 to date - Vice-Coordinator of the Associated Laboratory REAL - LA/P/0117/2020 **[** https://la-real.pt/]

March 2020 to date - Scientific Coordinator of the UNESCO Center Ciência LP **[** https://www.ciencialp.pt/ **)**

October 2016 to date - Vice-president of the Portuguese Society of Microbiology
[https://spmicrobiologia.wordpress.com/ **]**

July 2013 to date - Full Professor in Medical Microbiology (Professor Catedrático em Microbiologia Médica) in the Unit of Medical Microbiology (Group of Mycobacteriology) of the IHMT/UNL.
[https://novaresearch.unl.pt/en/persons/miguel-viveiros-bettencourt **]**

Dec2009 to date – Director of the Tuberculosis and Mycobacteria Clinical Laboratory. Services – Isolation, identification and drug susceptibility testing providd to the National System to Health and community. Applied research activities in Molecular Genetics of Mycobacteria and Bacteria, mycobacteria diagnosis, drug resistance and development of new drugs.

October 2014 – October 2017 – Special Visiting Professor at Faculdade de Medicina da Universidade do Rio de Janeiro (Brasil). Ref _ CAPES218488

January 2010 to December 2020 – President of the Pedagogical Council of the IHMT/UNL.

July 2013 to date – Full Professor in Biomedical Sciences and Medical Microbiology (Professor Catedrático em Ciências Biomédicas e Microbiologia Médica) in the Unit of Medical Microbiology of the IHMT/UNL.

April 2012 to July 2013 - Associate Professor with Habilitation in Biomedical Sciences (Speciality Microbiology) (Professor Associado com Agregação em Ciências Biomédicas – Especialidade Microbiologia) in the Unit of Medical Microbiology (Group of Mycobacteriology) of the IHMT/UNL. Thesis: "As novas tecnologias de biologia molecular no diagnóstico precoce da tuberculose resistente: a sua integração e monitorização no contexto dos programas de controlo da tuberculose - The new molecular biology technologies in the early diagnosis of drug-resistant tuberculosis: its integration and monitoring in the context of TB control programs".

Dec 2009 - April 2012 – Associate Professor (Professor Associado) in Medical Microbiology/Bacteriology in the Unit of Medical Microbiology (Group of Mycobacteriology) of the IHMT/UNL.

Mar 2001 – Dec 2009 - Assistant Professor (Professor Auxiliar) in Medical Microbiology/Bacteriology in the Unit of Mycobacteriology of the IHMT/UNL. Lecturing activities in the Masters Course (MSc) in Medical Microbiology from theIHMT/UNL; MSc Coordinator since 2003. Deputy Director of the Tuberculosis and Mycobacteria Clinical Laboratory. Research activities in Molecular Genetics of Mycobacteria and Bacteria, mycobacteria diagnosis, drug resistance and development of new drugs.

Jan 1998 – Mar 2001 - Lecturer (Assistente) in Medical Microbiology/Bacteriology in the Unit of Mycobacteriology of the IHMT/UNL. Lecturing activities in the Post-Graduation Course in Tropical Medical Microbiology and in the Faculty of Medical Sciences (Universidade Nova de Lisboa) – Microbiology and Parasitology -Third year of the Medical Degree Course. Research activities in Molecular Genetics of Mycobacteria, mycobacteria diagnosis and drug resistance.

Apr 1995 – Mar 2001 - PhD Scholarship from J.N.I.C.T./F.C.T.; Supervision: Prof Dr. Hugo Ayres David (Institut Pasteur Paris and IHMT/UNL) and Prof. Dr. Filomena Exposto (IHMT/UNL); Laboratory: Microbiologia of IHMT/UNL.; Thesis: "Isolation of the carotenogenesis operon in *Mycobacterium vaccae*. - Application to the development of new mycobacterial genetic tools and to the understanding of molecular mechanism of tuberculosis pathogeny".

Oct 1991 – Sep 1992 - Research training in Virology; Supervision: Profª Wanda Canas-Ferreira; Laboratory: Departamento de Microbiologia do Instituto de Higiene e Medicina Tropical da Universidade Nova de Lisboa (IHMT/UNL); Subject: "Cell culture for HIV-2 isolation from Guinea-Bissau"
Lecturing Post-Graduation Course in Tropical Medical Microbiology.

Oct 1992 – Apr 1995 - Master of Science Course in Biotechnology (Biochemical Engineering) from IST/UTL and research activity in Molecular Genetics/Biotechnology with a Scholarship from Junta Nacional de Investigação Científica e Tecnológica (J.N.I.C.T./F.C.T.); Supervision: Profª Doutora Isabel Sá-Correia (IST/UTL) and Prof Dr. Hugo Ayres David (Institut Pasteur Paris); Laboratory: Microbiologia IHMT/UNL; Thesis: "Carotenogenesis in *Mycobacterium vaccae* - Genetic and biochemical characterization"

Teaching Activity (coordination and/or teaching):
Mestrado (2º Ciclo) em Microbiologia Médica da Universidade Nova de Lisboa (UNL) – MSc in Medical Microbiology of UNL. Curricular Unit of Medical Bacteriology and Curricular Unit of Tuberculosis and other Mycobacteriosis;
Mestrado (2º Ciclo) em Ciências Biomédicas (IHMT/UNL) – MSc in Biomedical Sciences of IHMT/UNL. Curricular Unit of Medical Microbiology;
Mestrado (2º Ciclo) em Saúde Tropical (IHMT/UNL) – MSc in Tropical Health. Lectures on Laboratory Diagnosis of Tuberculosis and Curricular Unit of Tuberculosis and other Mycobacteriosis;
Mestrado (2º Ciclo) em Saúde e Desenvolvimento (IHMT/UNL) – MSc in Health and Development. Lectures on Design of TB-Control programs;
Doutoramento (3º Ciclo) em Ciências Biomédicas (IHMT/UNL). PhD in Biomedical Sciences - Curricular Unit of Medical Microbiology and Curricular Unit of Tuberculosis and other Mycobacteriosis;
Doutoramento (3ºCiclo) em Genética Humana e Doenças Infeciosas (IHMT/UNL) – PhD in Human Genetics and Infection. Curricular Unit of Medical Microbiology and Mycology.
Supervised and/or co-supervised several postgraduate degrees - 6 pos-docs, 10 PhD, 37 MSc students.

Area of scientific activity: Scientific activity devoted to the early diagnosis of active or latent tuberculosis (TB) infections as well as the development of new therapeutical approaches to deal with MDRTB and with other drug-resistant bacterial infections. Also interested in molecular biology of mycobacteria and immunology of TB. Executive Coordinator of the Masters in Medical Microbiology of the UNL. As Deputy-Director of the TB Laboratory of the IHMT (since 2001) has contributed to the resolution of the pulmonary TB problem of Lisbon by the generation of complete reports within a period of 15 to 20 days for 10 Hospitals of the TB Task Force of Lisbon. Over 200 studies published in peer review national and international journals in mycobacteriology, bacteriology, and resistance to antibiotics, microbial genetics, molecular epidemiology and immunology.

Domain of specialization: Medical Microbiology, bacteriology, mycobacteriology, laboratory diagnosis of mycobacterial infections, molecular biology and genetics of *Mycobacterium* sp. Tuberculosis. Molecular typing of multidrug-resistant *Mycobacterium tuberculosis*. Mechanisms and strategies to circumvent drug resistance in mycobacteria, composition of the mycobacterial cell wall/envelope in relation to drug resistance, new antibiotics, antibiotic uptake, efflux-pumps, drug targeting and molecular vectorisation, nanotechnology, flow-cytometry.

Present research interests: Research in tuberculosis and antibiotic-resistant infections in support for alternative therapies of incurable diseases such as multidrug resistant tuberculosis and methicillin-vancomycin resistant staphylococcal infections.

Immunology of tuberculosis. Strong interests in assisting Portuguese speaking countries of Africa in combating tuberculosis. Expertise in the laboratory diagnosis of tuberculosis infections.

Research funding: Principal Investigator/Team Leader of 15 research projects, 12 completed, three on-going (aprox. 2,5M€ of funding) and team member (researcher) of other 20 research projects. Scientific coordinator of the Research Unit Global Health and Tropical Medicine (GHTM . 1,5 M€ / 3 years) and Vice-Coordinator of the Associate Laboratory in Translation and Innovation Towards Global Health, LA-REAL (0,5 M€/ 3 years) (UID/04413/2020 and LA/P/0117/2020) – [https://ghtm.ihmt.unl.pt/]. Scientific Director of the UNESCO Center Ciência LP - "International Centre for Advanced Training of Scientists from Portuguese Speaking Countries" (0.5 M€ /3 years) [https://www.ciencialp.pt/].Funding agencies: Fundação para a Ciência e a Tecnologia, Ministério do Ensino Superior e Ciência, Fundação Calouste Gulbenkian, Ministério da Saúde, Conselho de Reitores das Universidades Portuguesas (Portugal), European Union, National Institute of Heath (NIH/USA).
https://orcid.org/0000-0001-9676-6251

Refereeing and Academic Societies activities: Consultant for the Portuguese National Directorate of Health, CPLP board and Health Ministries, Foundation of Sciences and Technologies of Portugal and ECDC.
Member of the EUCAST - AMST – Antimicrobial susceptibility testing of Mycobacteria working group.
https://eucast.org/ast_of_mycobacteria/
Member of the evaluation panel of Individual Doctoral and Post-doctoral Grant proposals - area Biomedical Sciences and Basic Medicine - Fundação para a Ciência e a Tecnologia – Ministério da Educação e Ciência de Portugal. Expert Evaluator for the Medical Research Council of UK calls (area Tuberculosis). Ad-hoc reviewer for the evaluation panels of EU Research Programs (Horizon 2020, Horizon Europe, COST Action), Individual Doctoral and Post-doctoral Grant proposals - Fundação para a Ciencia e a Tecnologia - Ministério da Educação e Ciencia de Portugal and ESCMID Grants. Expert Evaluator for "MRC South Africa" calls (area Tuberculosis), Welcome Trust and Fundação Osvaldo Cruz/Brasil, the Mark Wainberg Fellowship Programme (Africa) of the International AIDS Society Educational Fund, The Research Foundation - Flanders (FWO)/Belgium, Swiss National Science Foundation/Switzerland, UKRI/MRC/United Kingdom, National Agency for Scientific Evaluation (ANEP)/Spain and HCERES/France. Member of the evaluation panels for the QREN R&D investment proposals of the Ministério da Economia de Portugal. Regular ad-hoc reviewer of several international scientific journal (Lancet, Nature, JAC, AAC, PlosOne, IJAA, Tuberculosis, BMC Microbiology, etc) .2005 - present.
https://publons.com/author/772597/miguel-viveiros#profile
Vice-president of the Portuguese Society of Microbiology since 2026 [**https://spmicrobiologia.wordpress.com/**]

Academic and Science Management activities:

2021 – present - Vice-Coordinator of the Associated Laboratory REAL - LA/P/0117/2020 [https://la-real.pt/]

2020 – present - Scientific Coordinator of the R&D Center Global Health and Tropical Medicine of IHMT/NOVA (UID/04413/2020) [https://ghtm.ihmt.unl.pt/ghtm/] and the UNESCO Center Ciência LP [https://www.ciencialp.pt/].

2019 – present - SubDirector of the IHMT/UNL

2019 - Elected Chair of the Gordon Research Conference - Multi-Drug Efflux Systems
https://www.grc.org/multi-drug-efflux-systems-conference/2019/

2017- 2021 – Member of the National Council for Health (Conselho Nacional de Saúde) by nomination from the Portuguese Board of Biologists
http://www.cns.min-saude.pt/

2017 – present – Vice-president of the Portuguese Society of Microbiology (Sociedade Portuguesa de Microbiologia)
https://spmicrobiologia.wordpress.com/

2017 - Elected Vice-Chair of the Gordon Research Conference - Multi-Drug Efflux Systems
https://www.grc.org/multi-drug-efflux-systems-conference/2017/

2010 - present - Founding member and Treasurer (until 2017), currently management committee member of the Study Group for Mycobacterial Infections (ESGMYC) of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID).
https://www.escmid.org/index.php?id=897

2009 - present - Elected member of the Scientific Council of the IHMT/UNL.

2009 – present **–** Director of the Tuberculosis and Mycobacteria Clinical Laboratory

2010 – 2019 - President of the Pedagogical Council of the IHMT/UNL.

2006 - 2014 – Member of the Directive Committee of the Portuguese Board of Biologists (Ordem dos Biólogos). Presently, Counsellor for Health of the National Council.
http://ordembiologos.pt/

2005 – 2019 - Elected member and Vice-President of the General Council of the IHMT/UNL.

BIBLIOMETRICS:

Web of Science/Publons analysis: Total Articles in Publication List: 261; Sum of the Times Cited: 8856;
Publications in Web of Science: 232
h-index: 52
ResearcherID: A-7326-2008
URL: https://www.webofscience.com/wos/author/record/233745

Scopus analysis: Total Articles in Publication List: 232
Sum of the Times Cited: 10521
h-index: 55
Scopus Affiliation: 7003949212
URL : http://www.scopus.com/authid/detail.url?authorId=7003949212

Google Scholar analysis: Total citations:16568
h-index: 74
URL: http://scholar.google.pt/citations?user=o39byr4AAAAJ&hl=en

ORCID ID: URL: http://orcid.org/0000-0001-9676-6251

Publons ID : URL: https://publons.com/author/772597/miguel-viveiros#profile

Authenticus: URL: https://www.authenticus.pt/pt/profileOfResearchers/publicationsList/13666

NOVAPure: URL: https://novaresearch.unl.pt/en/persons/miguel-viveiros-bettencourt

CIÊNCIAVITAE URL: **https://www.cienciavitae.pt/DF17-B4BF-8756**

PUBLICATIONS IN INTERNATIONAL PEER-REVIEW JOURNALS (N = 222):

1. Patil M, Munteanu T, Brasseur G, Ferreira C, Costa SS, Couto I, Athar M, Asunis E, Vargiu AV, **Viveiros M**, DiGiorgio C, Brunel F, Raimundo JM, Camplo M, Siri O, Bolla JM. Unlocking the Gates: A Novel Diagnostic Molecule for Quantifying Efflux Levels in Gram-Positive Bacteria. *Adv Healthc Mater*. 2025 Apr;14(11):e2404145. doi: 10.1002/adhm.202404145. https://advanced.onlinelibrary.wiley.com/doi/10.1002/adhm.202404145

2. Andrade M, Neves J, Bento M, Marques J, Seabra SG, Silveira H, Rodrigues L, Armada A, **Viveiros M**, Couto I, Costa SS. Evaluation of Amlodipine and Imipramine Efficacy to Treat *Galleria mellonella* Infection by Biofilm-Producing and Antimicrobial-Resistant *Staphylococcus aureus*. *Antibiotics (Basel)*. 2025 Feb 11;14(2):183. doi: 10.3390/antibiotics14020183. https://www.mdpi.com/2079-6382/14/2/183

3. Elias R, Modesto A, Machado D, Pereira B, Phelan J, Melo-Cristino J, Lito L, Gonçalves L, Portugal I, **Viveiros M**, Campino S, Clark TG, Duarte A, Perdigão J. Dissemination of arr-2 and arr-3 is associated with class 1 integrons in *Klebsiella pneumoniae* clinical isolates from Portugal. *Med Microbiol Immuno*l. 2025 Jan 8;214(1):6. doi: 10.1007/s00430-024-00814-y. https://link.springer.com/article/10.1007/s00430-024-00814-y

4. Francisco, M., Belas, A., Costa, S. S., Menezes, J., Ramos, J., Couto, I., **Viveiros, M**., Pomba, C. Molecular Patterns and Antimicrobial Resistance Characterization of *Salmonella enterica* Non-Typhoidal from Human, Food, and Environment Samples Isolated in Luanda, Angola. *Zoonotic Diseases*,.2024. 4(4), 259-270. https://doi.org/10.3390/zoonoticdis4040022

5. Girardini, M., Machado, D., Annunziato, G., **Viveiros, M**., Pieroni, M. Preliminary structure−activity relationships analysis on N-(3,5-dichlorophenyl)-4,5-dihydronaphtho[1,2-d]thiazol-2-amine, a disruptor of mycobacterial energetics. *Medicinal Chemistry Research*, 2024, 33(3), pp. 518–531. 10.1007/s00044-024-03198-z. https://link.springer.com/article/10.1007/s00044-024-03198-z

6. Augusto WD; da Paixão JPM; **Viveiros M**, Nicolau SM. Sensitivity profile of pathogens identified in the diagnosis of urinary infection by uroculture carried out at the National Institute for Health Research, Luanda/Angola, during the pre - pandemic, intra - pandemic and post - pandemic of COVID 19. *Brazilian Journal of Clinical Medicine and Review*. 2024. Volume: 2, Issue: 4, Pages: 3-14. doi.org:10.52600/2965-0968.bjcmr.2024.2.4.3-14. https://www.bjclinicalmedicinereview.com.br/index.php/bjcmr/article/view/sensitivity_profile_pathogens_identified_diagnosis

7. Malaquias TDSS, Ribeiro EP, Dutra TCP, Ricardo M, Salvato R, Bhering M, Bartholomeu DC, Dalla-Costa ER, **Viveiros M**, Silva ECD, Kritski A. The performance of Xpert MTB/RIF and MTBDRplus within a Programmatic setting at TB Laboratory in Rio de Janeiro, Brazil. Rev Soc Bras Med Trop. 2024 Sep 13;57:e004162024. doi: 10.1590/0037-8682-0167-2024. https://www.scielo.br/j/rsbmt/a/bnK4998dCp4QZdksPJHkxwN/?lang=en

8. Ferrinho P, **Viveiros M**, Fronteira I. Antimicrobial resistance, society and environment: A glocal syndemic. *One Health*. 2023 Feb 17;16:100512. doi: 10.1016/j.onehlt.2023.100512. https://www.sciencedirect.com/science/article/pii/S2352771423000320?via%3Dihub

9. Fröberg G, Maurer FP, Chryssanthou E, Fernström L, Benmansour H, Boarbi S, Mengshoel AT, Keller PM, **Viveiros M**, Machado D, Fitzgibbon MM, Mok S, Werngren J, Cirillo DM, Alcaide F, Hyyryläinen HL, Aubry A, Andres S, Nadarajan D, Svensson E, Turnidge J, Giske CG, Kahlmeter G, Cambau E, van Ingen J, Schön T; EUCAST AMST and ESCMYC study groups. Towards clinical breakpoints for non-tuberculous mycobacteria - Determination of epidemiological cut off values for the *Mycobacterium avium* complex and *Mycobacterium abscessus* using broth microdilution. *Clin Microbiol Infect*. 2023 Jun;29(6):758-764. doi: 10.1016/j.cmi.2023.02.007. https://www.sciencedirect.com/science/article/pii/S1198743X23000605?via%3Dihub

10. Ferreira C, Abrantes P, Costa SS, **Viveiros M**, Couto I. Occurrence and Variability of the Efflux Pump Gene norA across the *Staphylococcus* Genus. *Int J Mol Sci*. 2022 Dec 4;23(23):15306. doi: 10.3390/ijms232315306. https://www.mdpi.com/1422-0067/23/23/15306

11. Marquês JT, Frazão De Faria C, Reis M, Machado D, Santos S, Santos MDS, **Viveiros M**, Martins F, De Almeida RFM. In vitro Evaluation of Isoniazid Derivatives as Potential Agents Against Drug-Resistant Tuberculosis. *Front Pharmacol*. 2022 May 4;13:868545. doi: 10.3389/fphar.2022.868545. https://www.frontiersin.org/articles/10.3389/fphar.2022.868545/full

12. Rodrigues L, Bento Cunha R, Vassilevskaia T, **Viveiros M**, Cunha C. Drug Repurposing for COVID-19: A Review and a Novel Strategy to Identify New Targets and Potential Drug Candidates. *Molecules*. 2022 Apr 23;27(9):2723. doi: 10.3390/molecules27092723. PMID: 35566073; PMCID: PMC9099573. https://www.mdpi.com/1420-3049/27/9/2723

13. Kritski AL, **Viveiros M**, Carvalho ACC. Rapid molecular diagnostics to detect resistance to second-line anti-TB drugs. *Int J Tuberc Lung Dis*. 2022 May 1;26(5):385-387. doi: 10.5588/ijtld.22.0121. PMID: 35505483. https://www.ingentaconnect.com/content/iuatld/ijtld/2022/00000026/00000005/art00002;jsessionid=9huhig8pu90la.x-ic-live-01

14. **Antimycobacterial Susceptibility Testing Group**. Updating the approaches to define susceptibility and resistance to anti-tuberculosis agents: implications for diagnosis and treatment. *Eur Respir J*. 2022 Apr 14;59(4):2200166. doi: 10.1183/13993003.00166-2022. https://erj.ersjournals.com/content/59/4/2200166.long

15. Bateson A, Ortiz Canseco J, McHugh TD, Witney AA, Feuerriegel S, Merker M, Kohl TA, Utpatel C, Niemann S, Andres S, Kranzer K, Maurer FP, Ghodousi A, Borroni E, Cirillo DM, Wijkander M, Toro JC, Groenheit R, Werngren J, Machado D, **Viveiros M**, Warren RM, Sirgel F, Dippenaar A, Köser CU, Sun E, Timm J. Ancient and recent differences in the intrinsic susceptibility of *Mycobacterium tuberculosis* complex to pretomanid. J Antimicrob Chemother. 2022 Mar 9:dkac070. doi: 10.1093/jac/dkac070. https://academic.oup.com/jac/advance-article/doi/10.1093/jac/dkac070/6544883?login=true

16. Rocha DMGC, **Viveiros M**, Saraiva M, Osório NS. The Neglected Contribution of Streptomycin to the Tuberculosis Drug Resistance Problem. *Genes (Basel)*. 2021 Dec 17;12(12):2003. doi: 10.3390/genes12122003. https://www.mdpi.com/2073-4425/12/12/2003

17. Ortiz M, Jauset-Rubio M, Skouridou V, Machado D, **Viveiros M**, Clark TG, Simonova A, Kodr D, Hocek M, O'Sullivan CK. Electrochemical Detection of Single-Nucleotide Polymorphism Associated with Rifampicin Resistance in Mycobacterium tuberculosis Using Solid-Phase Primer Elongation with Ferrocene-Linked Redox-Labeled Nucleotides. *ACS Sens*. 2021 Dec 24;6(12):4398-4407. doi: 10.1021/acssensors.1c01710. https://pubs.acs.org/doi/10.1021/acssensors.1c01710

18. Opota O, Mazza-Stalder J, **Viveiros M**, Cambau E, Santin M, Goletti D. Editorial: Tuberculosis and Non-tuberculous Mycobacteria Infections: Control, Diagnosis and Treatment. *Front Public Health*. 2021 Oct 28;9:666187. doi: 10.3389/fpubh.2021.666187.
https://www.frontiersin.org/articles/10.3389/fpubh.2021.666187/full

19. de Faria CF, Moreira T, Lopes P, Costa H, Krewall JR, Barton CM, Santos S, Goodwin D, Machado D, **Viveiros M**, Machuqueiro M, Martins F. Designing new antitubercular isoniazid derivatives with improved reactivity and membrane trafficking abilities. *Biomed Pharmacother*. 2021 Dec;144:112362. doi: 10.1016/j.biopha.2021.112362.
https://www.sciencedirect.com/science/article/pii/S075333222101146X?via%3Dihub

20. de Lourdes do Carmo Guimarães Diniz J, von Groll A, Unis G, Dalla-Costa ER, Rosa Rossetti ML, Vianna JS, Ramos DF, Reis AJ, Bartolomeu Halicki PC, Rheingantz Scaini JL, Castillos de Ibrahim das Neves Y, Phelan J, Gomes AR, Campino S, Machado KDS, Werhli AV, Pain A, Clark TG, Perdigão J, **Viveiros M**, Portugal I, Almeida Silva PE. Whole-genome sequencing as a tool for studying the microevolution of drug-resistant serial *Mycobacterium tuberculosis* isolates. *Tuberculosis (Edinb*). 2021 Dec;131:102137. doi: 10.1016/j.tube.2021.102137.
https://www.sciencedirect.com/science/article/pii/S1472979221000871?via%3Dihub

21. Gómez-González PJ, Perdigao J, Gomes P, Puyen ZM, Santos-Lazaro D, Napier G, Hibberd ML, **Viveiros M**, Portugal I, Campino S, Phelan JE, Clark TG. Genetic diversity of candidate loci linked to *Mycobacterium tuberculosis* resistance to bedaquiline, delamanid and pretomanid. *Sci Rep*. 2021 Sep 30;11(1):19431. doi: 10.1038/s41598-021-98862-4.
https://www.nature.com/articles/s41598-021-98862-4

22. Salvato RS, Reis AJ, Schiefelbein SH, Gómez MAA, Salvato SS, da Silva LV, Costa ERD, Unis G, Dias CF, **Viveiros M**, Portugal I, von Groll A, da Silva PEA, Kritski AL, Perdigão J, Rossetti MLR. Genomic-based surveillance reveals high ongoing transmission of multi-drug-resistant Mycobacterium tuberculosis in Southern Brazil. *Int J Antimicrob Agents*. 2021 Oct;58(4):106401. doi: 10.1016/j.ijantimicag.2021.106401.
https://www.sciencedirect.com/science/article/pii/S0924857921001667?via%3Dihub

23. Rodrigues L, Aínsa JA, **Viveiros M**. Measuring Efflux and Permeability in Mycobacteria. *Methods Mol Bio*l. 2021;2314:231-245. doi: 10.1007/978-1-0716-1460-0_9.
https://link.springer.com/protocol/10.1007/978-1-0716-1460-0_9

24. Schön T, Werngren J, Machado D, Borroni E, Wijkander M, Lina G, Mouton J, Matuschek E, Kahlmeter G, Giske C, Santin M, Cirillo DM, **Viveiros M**, Cambau E. Multicentre testing of the EUCAST broth microdilution reference method for MIC determination on *Mycobacterium tuberculosis*. *Clin Microbiol Infect*. 2021 Feb;27(2):288.e1-288.e4. doi: 10.1016/j.cmi.2020.10.019.
https://www.sciencedirect.com/science/article/pii/S1198743X20306509?via%3Dihub

25. Tozar T, Santos Costa S, Udrea AM, Nastasa V, Couto I, **Viveiros M**, Pascu ML, Romanitan MO. Anti-staphylococcal activity and mode of action of thioridazine photoproducts. *Sci Rep*. 2020 Oct 22;10(1):18043. doi: 10.1038/s41598-020-74752-z.
https://www.nature.com/articles/s41598-020-74752-z

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PARTICIPATION AND COORDINATION OF RESEARCH PROJECTS:

As Coordinator or Scientific Coordinator (n=15):

1. 2004 - 2006 - Principal Investigator/Coordinator of the project - Fundação Calouste Gulbenkian - " Diagnóstico Rápido da Tuberculose Multiresistente na Grande Lisboa".

2. 2005 - 2007 - Principal Investigator/Coordinator - Fundação para a Ciencia e Tecnologia - 1ST PHASE - (POCTI/SAU-MMO/59370/2004)" - Bombas de Efluxo em *M. tuberculosis*: caracterização molecular dos mecanismos de efluxo e uso de inibidores de efluxo como novos compostos anti-bacilares - Efflux-pumps in *M. tuberculosis*: molecular characterization of the efflux mechanism and use of efflux inhibitors as new anti-TB drugs".

3. 2007 - 2009 - Principal Investigator/Coordinator - Fundação para a Ciencia e Tecnologia - 2ND PHASE - (PPCDT/SAU-MMO/59370/2004) "Bombas de efluxo em *Mycobacterium tuberculosis*: caracterizacão molecular dos mecanismos de efluxo e uso de inibidores de efluxo como novos compostos anti-bacilares - Efflux-pumps in drug resistance of *Mycobacterium tuberculosis*: Molecular characterisation of the efflux mechanism and use of efflux inhibitors as new anti-tubercular compounds".
   https://app.dimensions.ai/details/grant/grant.3530664

4. 2008-2012 - Principal Investigator/Coordinator - Fundação Calouste Gulbenkian - Projecto de apoio ao Plano Estratégico de Controlo da Tuberculose de Moçambique - Support for the Strategic Plan to Fight TB in Mozambique. Fundação Calouste Gulbenkian, Instituto de Higiene e Medicina Tropical, Instituto Nacional de Saúde Dr. Ricardo Jorge.

5. 2008 - 2011 - Principal Investigator/Coordinator - Fundação para a Ciencia e Tecnologia - (PTDC/BIAMIC/ 71280/2006) - Dinâmica fisiológica e mutacional da resistência aos antibióticos em *Mycobacterium tuberculosis*: a emergência da Tuberculose Multi-Resistente. - Mutational and physiological dynamics of drug resistance in *Mycobacterium tuberculosis*: the emergence of Multi-Drug Resistant Tuberculosis.
   https://app.dimensions.ai/details/grant/grant.3527024

6. 2009 - 2013 - Principal Investigator/Coordinator - Fundação para a Ciencia e Tecnologia - (PTDC/SAUFCF/ 102807/2008) "Enhancing the killing of intracellular multi-drug resistant tuberculosis (MDRTB) by human macrophages: a new chemotherapeutic strategy to fight MDRTB".
   https://app.dimensions.ai/details/grant/grant.3525268

7. 2009 - 2013 - Principal Investigator/Coordinator - Fundação para a Ciencia e Tecnologia - (PTDC/BIAMIC/ 105509/2008) "Helper compounds against multidrug resistant bacteria: revealing their mechanism of action".
   https://app.dimensions.ai/details/grant/grant.3527257

8. 2012 - 2015 - Principal Investigator/Coordinator (Component IHMT/UNL) - “Formação em Diagnóstico Laboratorial de Tuberculose - ForDILAB TB”. Projecto conjunto Fundação Calouste Gulbenkian, Instituto de Higiene e Medicina Tropical e Instituto Nacional de Saúde Dr. Ricardo Jorge - Fundação Calouste Gulbenkian (instituição proponente – Drª Maria Hermínia Cabral - Parceiros: Instituto de Higiene e Medicina Tropical (Prof. Doutor Paulo Ferrinho, Prof. Doutor Isabel Leitão Couto e Prof. Doutor João Piedade) e Instituto Nacional de Saúde Dr. Ricardo Jorge (Professor Doutor José Calheiros e Drº Maria João Simões). Submetido ao Secretariado Executivo da Comunidade dos Países de Língua Portuguesa, no âmbito do Plano Estratégico de Cooperação em Saúde da CPLP.
   Nota: Projecto com o apoio e patrocínio do Representante Especial para Tuberculose do Secretário Geral das Nações Unidas, Sua Exª o Presidente da Républica Portuguesa, Dr. Jorge Sampaio.

9. 2014 - 2017 - Principal Investigator/Coordinator in Portugal (Component IHMT/UNL) - Jose R. Lapa e Silva/UFRJ Coordinator/PI Brazil - Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) – Projecto "Ciências em Fronteiras/Professor Visitante Especial" - Chamada de Projetos Programa Pesquisador Visitante Especial (PVE) - 1º Cronograma de 2014 (Proc.n◦ 88881.064961/2014-01) - "Inovação em nível laboratorial no controle de Tuberculose nos Estados do Rio de Janeiro e Amazonas".

10. 2018-2020 - Principal Investigator/Coordinator – GILEAD - Programa Gilead GÉNESE, referência PGG/012/2017 - Aplicação de nanopartículas superparamagnéticas no diagnóstico rápido, simultâneo e não invasivo da infecção pelo VIH e da tuberculose. Co-PI: Doutora Diana Machado

11. 2018-2019 - Global Alliance for Tuberculosis Drug Development - TB Alliance Pretomanid_NCLN_Micro_002 Study - "Determination of the minimum inhibitory concentration of pretomanid against *M. tuberculosis* using the BACTEC MGIT 960 instrument -". PI: Miguel Viveiros | co-PI: Diana Machado.

12. 2018-2023 - Principal Investigator/Coordinator - Fundação para a Ciencia e Tecnologia – (PTDC/BIA-MIC/30692/2017) – "MtbEPIs: Targeting efflux pumps in drug resistant *Mycobacterium tuberculosis*: an approach to prevent efflux-mediated resistance and boost therapy in active and latent tuberculosis". -. PI: Miguel Viveiros | co-PI: Diana Machado. https://app.dimensions.ai/details/grant/grant.9567870

13. 2019-2025 - Scientific Coordinator of the Research Unit Global Health and Tropical Medicine (GHTM . 1,5 M€ / 3 years) and Vice-Coordinator of the Associate Laboratory in Translation and Innovation Towards Global Health, LA-REAL (0,5 M€/ 3 years) (UID/04413/2020 and LA/P/0117/2020) – [https://ghtm.ihmt.unl.pt/].

14. 2019-2025 - Scientific Director of the UNESCO Center Ciência LP - "International Centre for Advanced Training of Scientists from Portuguese Speaking Countries" (0.5 M€ /3 years) [https://www.ciencialp.pt/].

15. 2021 – 2025 - Vice-Coordinator of the Associated Laboratory REAL - LA/P/0117/2020 [https://la-real.pt/]

As Member of the Research Team (n=23):

1. 1992 - 1994 - Junior Researcher in the project - C.E.E./D.G.XII - "AIDS Clinical and Seroimmunological reevaluation of HIV-2 positive people of Guiné-Bissau"; (Contract Nº TS2 - 001- P(TT) - EEC)- Coordinator - Prof. Wanda Canas-Ferreira.

2. 1994 - 1997 - Researcher in the project - Fundação Calouste Gulbenkian - (Desp-FCG-05/01/1994) - "Estudo cooperativo internacional sobre a imunidade protectora em tuberculose: investigações clinico-epidemiológicas e laboratoriais relacionadas com perspectivas de novos métodos de diagnóstico e pesquisa de nova geração de vacinas" - Coordinator - Prof. Hugo Ayres Lopes David.

3. 1995 - 1998 - Researcher in the project - Comissão Nacional de Luta Contra a SIDA - National Committee Against AIDS -(Projecto Nº 9-1.10.6./94) -"Estudo da relação tuberculose-SIDA e dos problemas de transmissão da tuberculose nas populações de alto risco, com a introdução, desenvolvimento e aplicação prática de novos métodos de diagnóstico rápido da tuberculose". Coordinator - Prof. Hugo Ayres Lopes David.

4. 2002 - 2005 - Researcher in the project - Fundação Calouste Gulbenkian - (SDH.IC.I.01.17) - " Grupo de Trabalho para a Tuberculose na Grande Lisboa - TB-TASK-FORCE for Greater Lisbon" - Coordinator - Prof. Leonard Amaral.

5. 2002 - 2005 - Researcher in the project - Fundação Calouste Gulbenkian - " Pesquisa de novos marcadores de imunidade celular para a detecção precoce da infecção por *Mycobacterium tuberculosis* - New cellular immune markers for early detection of active TB" - Coordinator - Prof. Leonard Amaral.

6. 2002 - 2005 - Researcher in the project - Fundação para a Ciencia e Tecnologia - (POCTI/FCB/37579/2001)" A actividade antimicobacteriana dos derivados de fenotiazinas, uma alternativa efectiva contra *M. tuberculosis* resistente aos antibióticos - Phenothiazines as an effective alternative against MDRTB" - Coordinator - Prof. Leonard Amaral.

7. 2008 - 2011 - Member/Researcher in the EU Consortium/Action – "Cost Action BM0701 - Antibiotic Transport and Efflux : New Strategies to combat bacterial resistance (Acronym:ATENS) "- European Science Foundation.

8. 2009 - 2012 - Researcher in the project – "Diagnóstico e Epidemiologia Molecular de M/XDR-TB na Grande Lisboa: a Detecção Precoce na Prevenção da Emergência e Disseminação de Estirpes de *M. tuberculosis* Extensivamente Resistentes. - Early Molecular Detection of M/XDRTB in the Great Lisbon Healthcare Region" - Fundação Calouste Gulbenkian - Serviço de Saúde e Desenvolvimento Humano – Ref. P-99934 - Programa de Apoio à Investigação na Área da Microbiologia Clínica. Coordinator - Prof. Isabel Couto.

9. 2010 - 2013 - Researcher in the project - Quadro de Referência Estratégico Nacional (QREN)- "Acompanhamento da sequenciação e validação de "primers", anotação e sua validação, construção de uma "toolbox" de transcriptómica dirigida e implementação de ensaios de qRT-PCR de duas estirpes de *Sphingomonas* sp. produtoras de carotenoides". Coordinator - Biotech company - Biotrend, Lda.

10. 2010 - 2013 - Researcher in the project - Fundação para a Ciência e Tecnologia - (PTDC/CVT/111634/2009) – ZoonTB - Novas abordagens moleculares para a detecção e discriminação de membros do Complexo *Mycobacterium tuberculosis* associados a tuberculose animal e avaliação do potencial zoonótico destas espécies em Portugal" - Instituto Nacional de Recursos Biológicos, I.P. (INRB/MADRP) instituição proponente - Coordinator - Inv. Doutor João Inácio.
    https://former.fct.pt/apoios/projectos/consulta/vglobal_projecto.phtml.pt?idProjecto=111634&idElemConcurso=3551

11. 2011 - 2014 - Researcher in the project - Fundação para a Ciência e Tecnologia - (PTDC/BIA-MIC/121859/2010) - " Type-II NADH-menaquinone oxidoreductase (NDH-2) and the respiratory chain of *M. tuberculosis*: new therapeutic targets to fight tuberculosis." - Grupo de Micobactérias da Unidade de Microbiologia do IHMT/UNL (instituição proponente). Parceiro: Fundação da Faculdade de Ciências e Tecnologia (FFCT/FCT/UNL). Coordinator - Prof. Isabel Couto.
    https://app.dimensions.ai/details/grant/grant.3530262

12. 2013 - 2016 - Researcher in the project - Coordenação de Aperfeicoamento de Pessoal de Nível Superior (CAPES)- (Grant number: 439608) - "Characterization of the efflux mechanism related to antimicrobial and antitumor resistance and development of new drugs that inhibit this mechanism -." Federal University Foundation of Rio Grande, Brazil (instituição proponente). Coordinator - Prof. Pedro Eduardo Almeida da Silva.
    https://app.dimensions.ai/details/grant/grant.13375103

13. 2013 - 2016 - Researcher in the project - Fundação para a Ciência e Tecnologia - (PTDC/IVC-COM/5016/2012) - "OSYRISH - Organizational and Informational System to Improve Healthcare Associated Infections management in a set of Hospitals -." Unidade de Saúde Internacional do IHMT/UNL (instituição proponente). Parceiros: Hospitais de Lisboa e da CPLP. Coordinator - Prof. Luis Lapão.
    https://app.dimensions.ai/details/grant/grant.3534665

14. 2015-2017 - Researcher in the project - Programa Iniciativas em Saúde Pública | EEA Grants - HAITool – A Toolkit to Prevent, Manage and Control Healthcare-Associated Infections in Portugal (EEA Grants 182DT3). Unidade de Saúde

Internacional do IHMT/UNL (instituição proponente). Parceiros: Centro Hospitalar de Lisboa Oriental - Lisbon, Portugal e The University Hospital of Northern Norway, Tromsø, Norway. Coordinator - Prof. Luis Lapão.

15. 2015 - 2018 - Researcher in the project - Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro - "Infecção Mista com diferentes linhagens de *M. tuberculosis* ou M. atípicas: papel no diagnóstico e tratamento da TB e TB resistente", Entidade financiadora FAPERJ – Edital FAPERJ N.º 03/2015 – "Apoio a Projetos Temáticos no Estado do Rio de Janeiro – 2015". Esta proposta integra a estratégia de Gestão em áreas Estratégicas das Unidades Acadêmicas da área da Saúde da UFRJ. Coordenação do Prof Afranio Lineu Kritski, Prof titular da Faculdade de Medicina da UFRJ.

16. 2017 – 2020 - Researcher in the project - Becton-Dickinson, USA 2017 - "Avaliação do sistema automatizado BACTEC MGIT 960-TB eXiST como teste quantitativo de suscetibilidade aos antimicrobianos para *Mycobacterium tuberculosis*". Coordenado pela pesquisadora Doutora Erica Chimara, Instituto Adolfo Lutz, São Paulo.

17. 2017 – 2020 -- Researcher in the project - "Implementação de um sistema semiautomatizado de detecção de resistência a drogas de primeira linha no Centro de Referência para tratamento de tuberculose resistente do Estado do Rio Grande do Sul e avaliação do impacto da implementação dessa tecnologia, bem como monitoramento da tuberculose resistente no Centro de Referência", Submetido à CHAMADA FAPERGS/MS/CNPq/SESRS n. 03/2017 PROGRAMA PESQUISA PARA O SUS: GESTÃO COMPARTILHADA EM SAÚDE PPSUS – 2017. Coordenado pela pesquisadora Doutora Elis Regina Dalla Costa.

18. 2018-2023 - Researcher in the project - Fundação para a Ciência e Tecnologia – (02/SAICT/2017: C493201324-00089525) "Preventing antimicrobial resistance in the community - the safe use of biocides" Unidade de Microbiologia Médica e GHTM do IHMT/UNL (instituição proponente). Parceiro Faculdade de Medicina Veterinária da Universidade de Lisboa. Coordinator - Prof. Isabel Couto.
https://app.dimensions.ai/details/grant/grant.13262200

19. 2018-2023 - Researcher in the project - Fundação para a Ciência e Tecnologia – "BYDRUG: Immunotargeting efflux systems for therapeutic modulation of multidrug resistant bacteria." Fundação para a Ciência e a Tecnologia - PTDC. PI: Ricardo Vieira-Pires | co-PI: Miguel Viveiros.
https://app.dimensions.ai/details/grant/grant.9567801

20. 2018-2023 - Researcher in the project - Fundação para a Ciência e Tecnologia – (PTDC/QUIQOR/32406/2017) "IonPharma4TB: Active pharmaceutical ionic liquids as new platform for effective treatment of tuberculosis (TB-ILs)." Fundação para a Ciência e a Tecnologia -. PI: Luís Branco | co-PI: Miguel Viveiros.
https://app.dimensions.ai/details/grant/grant.9568511

21. 2018-2023 - Researcher in the project - Fundação para a Ciência e Tecnologia – (PTDC/MEDQUI/29036/2017) - "TARGTUB - Targeting multi-resistant tuberculosis with new potent isoniazid derivatives: an integrated medicinal chemistry approach." Fundação para a Ciência e a Tecnologia - PTDC/MEDQUI/29036/2017. PI: Filomena Leitão | co-PI: Miguel Machuqueiro..
https://app.dimensions.ai/details/grant/grant.9567167

22. 2018-2023 - Researcher in the project - Fundação para a Ciência e Tecnologia – (PTDC/SAU-PAR/28459/2017) - "Identification of new antimalarial treatments through a target-centred "drug repositioning" approach." Fundação para a Ciência e a Tecnologia - PTDC/SAU-PAR/28459/2017. PI: Pedro Cravo | co-PI: Miguel Miguel Viveiros.
https://app.dimensions.ai/details/grant/grant.9566902

23. 2023-2024 - Researcher in the project - Fundação para a Ciência e Tecnologia – (2022.07931.PTDC) - “Exploring efflux inhibition to counteract antimicrobial resistance and biofilms in staphylococci.” Fundação para a Ciência e a Tecnologia - 2022.07931.PTDC. PI: Sofia Santos Costa | co-PI: Isabel Couto. https://app.dimensions.ai/details/grant/grant.13262200

EXPERIENCE AS SCIENTIFIC ADVISER/SUPERVISOR (N=57):

Post-doctoral fellows supervised or ongoing (n= 3)
Post-doctoral fellows co-supervised or ongoing (n= 3)
PhD Students supervised or ongoing (n= 4)
PhD students co-supervised or ongoing (n= 5)
MSc Students supervised, co-supervised or ongoing (n = 37)
BSc students supervised (n = 6)

1. 1995/1996 – Co-supervisor of Paulo Jorge Gonçalves de Bettencourt - Licenciatura Thesis in Engenharia Biotecnológica do Instituto Superior de Humanidades e Tecnologias (ISHT) / Universidade Lusófona - Supervisor Profª. Doutora Laura Brum

2. 1996/1997 - Supervisor of Patrícia Raquel Fernandes de Melo Moreira - Licenciatura Thesis in Microbiologia pela Escola Superior de Biotecnologia da Universidade Católica Portuguesa - "Avaliação do teste de diagnóstico *Mycobacterium tuberculosis* LCX Abbott para amostras extrapulmonares".

3. 1996/1997 - Supervisor of Susana Frazão Pinheiro - Licenciatura Thesis in Microbiologia pela Escola Superior de Biotecnologia da Universidade Católica Portuguesa - "Avaliação do teste de identificação MTB LCX Abbott para amostras pulmonares".

4. 2001/2002 - Supervisor of Ana Isabel Caldeira de Jesus - Licenciatura Thesis in Engenharia Biotecnológica da Universidade Lusófona - "Resistência à tetraciclina em *Escherichia coli* por mecanismos de extrusão";.

5. 2003/2004 - Supervisor of Mafalda Lopes Brito - Licenciatura Thesis in Engenharia Biotecnológica do Instituto Superior Técnico da Universidade Técnica de Lisboa - "Resistência aos antibióticos em *Staphylococcus aureus* e *Escherichia coli* por mecanismos de extrusão".

6. 2003/2004 - Supervisor of - Francisco Estrela de Soure Dores - Licenciatura Thesis in Biologia Microbiana da Faculdade de Ciências de Lisboa - "Isolamento, purificação e caracterização de uma fracção proteica do envelope celular *de Staphylococus aureus* associada à adaptação a elevadas concentrações de brometo de etídio".

7. 2004/2005 - Supervisor of Maria João Lobo da Cruz Rocha Monteiro Caetano - MSc in Medical Microbiology Thesis (IHMT/UNL) -"Diagnóstico molecular de micobacterioses em pacientes co-infectados com o VIH. Importância clínica, laboratorial e epidemiológica (em colaboração com o Hospital Egas Moniz)".
   http://sd01.ihmt.unl.pt/docbweb/plinkres.asp?Base=GERAL&Form=BIBLIO&StartRec=0&RecPag=5&NewSearch=1&SearchTxt=%22AU%20CAETANO%2C%20Maria%20Jo%E3o%22%20%2B%20%22AU%20CAETANO%2C%20Maria%20Jo%E3o%24%22
   http://memoria-africa.ua.pt/Catalog/ShowRecord.aspx?MFN=393851

8. 2004/2005 - Supervisor of Liliana Isabel Dias Rodrigues- MSc in Medical Microbiology Thesis (IHMT/UNL) - "Diagnóstico precoce da tuberculose multiresistente na Grande Lisboa".
   http://memoria-africa.ua.pt/Catalog/ShowRecord.aspx?MFN=393780

9. 2006/2007 - Supervisor of - Ana Laura Paixão - "Modelação do efluxo de Brometo de Etídio em *Escherichia coli*" . MSc in Biological Engineering from Instituto Superior Técnico da Universidade Técnica de Lisboa .

10. 2006/2007 - Supervisor of Ana Daniela de Araújo Sampaio - MSc in Medical Microbiology Thesis (IHMT/UNL)- "A contribuição da resistência fenotípica na resistência aos tuberculostáticos no género *Mycobacterium*" .
    http://www.itqb.unl.pt/events/master-thesis/master-thesis-in-medical-microbiology-7

11. 2006/2007 - Supervisor of Ana Catarina Heitor Martins Cardoso - MSc in Medical Microbiology Thesis (IHMT/UNL)- "Efluxo de compostos fluorescentes em *Escherichia coli* e sua correlação com a resistência clínica aos antibióticos." http://www.itqb.unl.pt/events/master-thesis/master-thesis-in-medical-microbiology-4

12. 2006/2007 - Co-supervisor of Sofia Maria Mourão Marques dos Santos Costa – MSc in Medical Microbiology Thesis (IHMT/UNL) - "Caracterização de proteínas do envelope celular de *S. aureus* associadas ao efluxo de compostos biocidas".
https://run.unl.pt/handle/10362/19283
http://www.itqb.unl.pt/support-services/library/itqb-thesis

13. 2007/2008 - Supervisor of Nadia Borges Charepe - MSc in Biomedical Sciences Thesis (IHMT/UNL) - "Estudo biológico dos mecanismos de resistência aos antibióticos desenvolvido em *Escherichia coli* sujeita a pressão antibiótica prolongada".
https://run.unl.pt/handle/10362/19222
http://memoria-africa.ua.pt/Catalog/ShowRecord.aspx?MFN=393970

14. 2008/2009 - Supervisor of Jorge Alexandre dos Santos Ramos – MSc in Medical Microbiology Thesis (IHMT/UNL) - "Avaliação do efeito sinérgico de inibidores de bombas efluxo na susceptibilidade do género *Mycobacterium* aos tuberculostáticos".
https://run.unl.pt/bitstream/10362/10272/1/Transporte%20de%20brometo%20de%20et%C3%ADdio%20atrav%C3%A9s%20da%20parede%20de%20Mycobacterium%20smegmatis.pdf

15. 2008/2009 - Supervisor of Susana Cristina Nunes Costa – MSc in Medical Microbiology Thesis (IHMT/UNL) - "Caracterização bioquímica e molecular do efluxo de Brometo de Etídeo em *Escherichia coli*"
https://run.unl.pt/handle/10362/5350

16. 2004/2008 - Co-supervisor of Marta Lopes Martins (SFRH/BD/14319/2003) - PhD Thesis in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "The antimycobacterial activity of thioridazine derivatives, against Drug Resistant *Mycobacterium tuberculosis*. In vitro, ex vivo and in vivo studies".- Supervisor Prof. Doutor Leonard Amaral.
http://sd01.ihmt.unl.pt/docbweb/plinkres.asp?Base=GERAL&Form=BIBLIO&StartRec=0&RecPag=5&NewSearch=1&SearchTxt=%22AU%20MARTINS%2C%20Marta%20Lopes%22%20%2B%20%22AU%20MARTINS%2C%20Marta%20Lopes%24%22
http://memoria-africa.ua.pt/Catalog/ShowRecord.aspx?MFN=393922

17. 2004/2008 - Co-supervisor of Ana Sofia Fernandes Martins (SFRH/BD/19445/2004)– - PhD Thesis in Medical Microbiology of IHMT/Universidade Nova de Lisboa -"The effects of *Carpobrotus edulis* methanol extract and purified compound(s) against multi-drug resistant *Mycobacterium tuberculosis* strains" - Supervisor Prof. Doutor Leonard Amaral.

18. 2008/2009 – Co-supervisor of Diana Isabel Oliveirra Machado– MSc in Medical Microbiology Thesis (IHMT/UNL) "Dinâmica fisiológica e mutacional da multirresistência em *Mycobacterium tuberculosis*." Supervisor Prof. Doutor Isabel Couto.

19. 2006/2010 - Supervisor of Liliana Isabel Dias Rodrigues (SFRH/BD/24931/2005) - PhD Thesis in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "The role of the efflux mechanisms in Multi-drug Resistance in *Mycobacterium tuberculosis*".
https://run.unl.pt/handle/10362/4813

20. 2009/2014 - Supervisor of Diana Isabel Oliveira Machado (SFRH/BD/65060/2009) - PhD Thesis in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "The dynamics of drug resistance in *Mycobacterium tuberculosis*: exploring the biological basis of multi- and extensively drug resistant tuberculosis (MDR/XDRTB) as a route for alternative therapeutic strategies".
https://run.unl.pt/handle/10362/20311

21. 2009/2014 - Co-supervisor of Pedro Miguel Nisa Costa (SFRH/BD/64136/2009) - PhD Thesis in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "Novas abordagens moleculares para a detecção e diferenciação rápida de espécies do complexo *Mycobacterium tuberculosis* e avaliação do seu potencial zoonótico em Portugal". - Supervisor Doutor João Inácio.
https://run.unl.pt/handle/10362/19272

22. 2009/2010 – Co-supervisor of Miguel José Simas do Rosário Evaristo – MSc in Biomedical Sciences Thesis (IHMT/UNL) - "Biological activity of well-defined heterocyclic compounds on efflux pump systems of bacteria and cancer cells". - Supervisor Doutora Gabriella Spengler.
https://run.unl.pt/handle/10362/5617

23. 2010/2014 - Post-Doc Supervisor of Marta Sofia Lopes Martins (SFRH/BPD/63871/2009) - Post-Doc program in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "Targeting the human macrophage with combinations of second-line TB drugs and inhibitors of Ca2+ and K+ transport to enhance the killing of intracellular Multi-Drug Resistant *M. tuberculosis* (MDR-TB) – a novel approach to limit the emergence of XDRTB".

24. 2010/2011 - Co-supervisor of Lisa Santos Machado – MSc in Medical Microbiology Thesis (IHMT/UNL) - "The inhibitory activity of synthetic compounds and ions against transporters of multi-drug resistant bacteria". - Supervisor Professor Doutor Leonard Amaral.
https://run.unl.pt/handle/10362/7712

25. 2010/2011 - Supervisor of Antónia Rosa Trindade Pinto – MSc in Biomedical Sciences Thesis (IHMT/UNL) - Resistência mediada por efluxo em *Escherichia coli*: desenvolvimento de novas estratégias terapêuticas."
https://run.unl.pt/handle/10362/14014

26. 2010/2011 - Co-supervisor of Vanessa Roque Cabral – MSc in Química Farmacêutica e Terapêutica da Faculdade de Farmácia da Universidade de Lisboa - "Efflux pump inhibitors in multidrug resistant bacterial strains from medicinal plants". Supervisor - Professora Doutora Maria José Umbelino Ferreira.
http://repositorio.ul.pt/handle/10451/11231

27. 2010/2011 – Co-supervisor of Ana Carolina Vencá – MSc in Biotecnologia do Instituto Superior Técnico da Universidade Técnica de Lisboa, "Identification and characterisation of efflux pumps in *Rhodococcus erythropolis*." Supervisor - Doutora Carla C.C.R. de Carvalho.
https://fenix.tecnico.ulisboa.pt/cursos/mbiotec/dissertacao/2353642392242

28. 2011/2013 - Co-supervisor of Nureisha Abdul Gafur Cadir – MSc in Saúde Pública da Faculdade de Medicina da Universidade Eduardo Mondlane – Mozambique - "Avaliação do desempenho dos testes imunocromatográficos rápidos (BD MGIT TBc Identification Test e TB Ag MPT64 Device) para a diferenciação do Complexo *M. tuberculosis* das Micobactérias Não Tuberculosas". Supervisores - Professor Doutor Mohsin Sidat e Doutor Eduardo Samo Gudo.

29. 2012/2015 - Post-Doc Supervisor of Paulo Rabna (SFRH/BPD 64/2011) Instituto Nacional de Saúde Pública da Guiné-Bissau - "Tuberculose Multirresistente na Guiné-Bissau ".

30. 2012/2013 – Supervisor of Vânia Filipa Ferreira da Silva – MSc in Biomedical Sciences Thesis (IHMT/UNL) – "Contribuição dos sistemas de efluxo na resistência à claritromicina no complexo *Mycobacterium avium*." Co-supervisor – Professor Isabel Couto.

31. 2013/2014 – Co-supervisor of Ana Luísa Chocalheiro – MSc in Biotecnologia da Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, "Application of Lab-on-Paper technology to colorimetric biosensors for the detection of tuberculous mycobateria." Supervisor – Professor Doutora Elvira Fortunato.
https://run.unl.pt/handle/10362/13836

32. 2013/2014 – Co-supervisor of André Meneses Valério – MSc in Engenharia Biomédica da Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa, "Desenvolvimento de testes de susceptibilidade a antibióticos do tipo E-tests em suportes de papel utilizando a tecnologia lab-on-paper" Supervisor – Professor Doutora Elvira Fortunato.
http://www.fct.unl.pt/en/node/26736

33. 2013/2017 - Supervisor of Moisés Francisco - PhD Thesis in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "Caracterização microbiológica e molecular das estirpes de Salmonella spp isoladas em amostras de fezes, águas residuais e em ovos de produção aviárias na região de Luanda e dos seus perfis de resistência aos antimicrobianos – o seu impacto na saúde pública.". Co-supervisor – Professor Constança Pomba
http://hdl.handle.net/10362/59484

34. 2015/2018 - Supervisor of Ana Maria Buttle de Mendonça Mourão Possidónio de Armada - PhD Thesis in Human Genetics and Infectious Desiases of IHMT/Universidade Nova de Lisboa - "Modulation of ABC transporters in multidrug resistance (MDR): From prokaryotic to eukaryotic cells." Co-supervisor – Professor Sebastião Rodrigues.
http://hdl.handle.net/10362/66659

35. 2014/2017 - Post-Doc Co-Supervisor of – João Ruben Lucas Mota Perdigão (SFRH/BPD/95406/2013) - Post-Doc program in Microbiology of Pharmacy Faculty/Universidade de Lisboa - "Tuberculosis in Portugal and Portuguese-speaking African Countries: From Genomics to Product Development". Supervisor – Professora Doutora Isabel Portugal.

36. 2014/2015 - Supervisor of Ana Sofia Mourão Simões – MSc in Medical Microbiology Thesis (IHMT/UNL) - " Contribuição do efluxo para a aquisição de resistência aos antibióticos em isolados clínicos de *Acinetobacter baumannii* . Co-supervisor Doutora Diana Machado.
https://run.unl.pt/handle/10362/19196

37. 2014/2015 – Supervisor of Marta Isabel Martins Gabriel – MSc in Biomedical Sciences Thesis (IHMT/UNL) – "Resposta imunitária inflamatória de macrófagos na presença de inibidores de efluxo." Co-supervisors – Professora Gabriela Santos-Gomes e Investigadora Ana Maria Buttle de Mendonça Mourão Possidónio de Armada.
https://run.unl.pt/handle/10362/19084

38. 2014/2015 – Co-Supervisor in Portugal of – Tatiane Silveira Coelho - Bolsa Doutorado Sandwich no Brasil – PhD thesis - "Relação entre o mecanismo de efluxo e a resistência aos antimicobacterianos em isolados clínicos de *Mycobacterium tuberculosis*" -.Coorientador em Portugal: Profª. Dr. Miguel Viveiros. Orientador no Brasil: Prof. Dr. Pedro Eduardo Almeida da Silva e Prof. Dra. Andrea von Groll (NUPEMM/FURG).
http://www.lume.ufrgs.br/handle/10183/117897

39. 2015/2018 - Post-Doc Supervisor of Diana Isabel Oliveira Machado (SFRH/BPD/100688/2014) - Post-Doc program in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "Exploring the mode of action of efflux inhibitors against *Mycobacterium tuberculosis*: an approach to prevent efflux-mediated resistance and boost therapy in active and latent tuberculosis".

40. 2015/2019 – Co-Supervisor of Ana Maria Pinho Tavares (PD/BD/105916/2014) – PhD Thesis in Global Public Health of IHMT/Universidade Nova de Lisboa in association with Universidade do Porto (FCT Doctoral Program in Global Public Health)- "HIV, tuberculosis and coinfection among migrant populations living in Portugal". Supervisor: Professor Sónia Dias (ENSP/UNL)
http://hdl.handle.net/10362/105852

41. 2015/2016 - Post-Doc Co-Supervisor of Alexandra Simões - Post-Doc program in Medical Microbiology of IHMT/Universidade Nova de Lisboa - "Using molecular, epidemiological, clinical and social data to prevent and control antibiotic resistant healthcare-associated infections". Programa Iniciativas em Saúde Pública | EEA Grants - HAITool – A Toolkit to Prevent, Manage and Control Healthcare-Associated Infections in Portugal (EEA Grants 182DT3). Unidade de Saúde Internacional do IHMT/UNL (instituição proponente). Parceiros: Centro Hospitalar de Lisboa Oriental - Lisbon, Portugal e The University Hospital of Northern Norway, Tromsø, Norway. Main-supervisor and Coordinator – Investigador Doutor Luis Lapão.

42. 2016/2017 - Supervisor of Mariana Silva – MSc in Medical Microbiology Thesis (UNL) – "A contribuição do efluxo na resistência aos β-lactâmicos em isolados clínicos de *Escherichia coli*". Co-supervisor – Doutora Diana Machado

43. 2016/2017 - Supervisor of Jessica Antunes – MSc in Medical Microbiology Thesis (UNL) – "Estudo da contribuição de bombas de efluxo, porinas e β-lactamases na resistência aos carbapenemos em isolados clínicos de *Acinetobacter baumannii*." Co-supervisor – Doutora Diana Machado
http://hdl.handle.net/10362/114950

44. 2016/2017 – Supervisor of Ana Raquel Esteves Costa– MSc in Biomedical Sciences Thesis (IHMT/UNL) – "Contribuição do efluxo para a emergência da resistência em bactérias persistentes." Co-supervisor – Doutora Diana Machado
http://hdl.handle.net/10362/53496

45. 2016/2017 – Supervisor of Samuel Antunes – MSc in Biomedical Sciences Thesis (IHMT/UNL) – "Aplicação de um método fluorométrico em placa de 96 poços para a detecção de actividade de efluxo em bactérias". Co-supervisor – Doutora Diana Machado
http://hdl.handle.net/10362/53802

46. 2017/2018 – Co-supervisor of Maria João Theron - MSc Thesis in Biomedical Sciences (IHMT/UNL) – "Caracterização da actividade de efluxo de Hoechst 33258 em *Escherichia coli*." Supervisor: Diana Machado.
http://hdl.handle.net/10362/66373

47. 2017/2018 – Co-supervisor of Fátima Rodrigues - MSc Thesis in Biomedical Sciences (IHMT/UNL) – "Caracterização dos mecanismos de resistência à colistina em isolados clínicos de *Acinetobacter baumannii* resistentes aos carbapenemos." Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.
http://hdl.handle.net/10362/116358

48. 2018/2019 –Co-supervisor of Mónica Eduarda Franco Ferreira – MSc Thesis in Biomedical Sciences (IHMT/UNL) – "Diagnóstico e tratamento da infeção malárica: desenvolvimento de uma nova plataforma de diagnóstico e de um novo composto antimalárico" - co-supervisor: Ana Paula Arez.
https://run.unl.pt/handle/10362/66269

49. 2018/2019 – Supervisor of José Ribeiro – MSc Thesis in Medical Microbiology (UNL) – "Uma abordagem bioinformática para o estudo da contribuição das bombas de efluxo "Small Multidrug Resistance" na resistência aos antibióticos em *Acinetobacter baumannii* através de análise de genoma completo" - co-supervisor: Diana Machado. Ongoing.
http://hdl.handle.net/10362/93123

50. 2018/2019 – Co-supervisor of Iolanda Neves – MSc Thesis in Medical Microbiology (UNL) – "O papel dos mutantes *hip* na resistência aos antibióticos mediada por efluxo em bactérias persistentes" - Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.

51. 2019/2020 – Co-supervisor of Debora Carvalho Serra – MSc Thesis in Medical Microbiology (UNL) - Detecção e inibição da actividade de β-lactamases em isolados clinicos de *Escherichia coli* combinando inibidores de β-lactamases e inibidores de efuxo usando o metodo MTT: validação fenotípica e genotípica. Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.
http://hdl.handle.net/10362/97300

52. 2020/2021 – Co-supervisor of Inês Maia – MSc Thesis in Biomedical Sciences (IHMT/UNL) – "Estudo de competição entre substratos de bombas de efluxo em isolados clínicos de *Escherichia coli* por fluorimetria em tempo real usando Vermelho do Nilo". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.
http://hdl.handle.net/10362/146124

53. 2021/2022 – Co-supervisor of Bruna Pereira – MSc Thesis in Medical Microbiology (UNL) – "Pathogenesis of urinary infections by *Escherichia coli*: phenotypic and molecular characterization of virulence mechanisms". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.

54. 2021/2022 – Co-supervisor of Sarah Göthe – MSc Thesis in Medical Microbiology (UNL) – "The contribution of oxidative stress to persisters formation and survival". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.
https://run.unl.pt/handle/10362/159181

55. 2021/2022 – Co-supervisor of Isabel Roseiro – MSc Thesis in Medical Microbiology (UNL) – "Characterization of the genetic diversity and virulence factors of *Mycobacterium avium* clinical strains". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.

56. 2022/2023 - Co-supervisor of Filipa de Jesus Vila Boa Menino – MSc Thesis in Medical Microbiology (UNL) – "Towards the establishment of a reference method for *Mycobacterium avium* drug susceptibility testing". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.

57. 2022/2023 - Co-supervisor of Maria João Veríssimo Almeida – MSc Thesis in Medical Microbiology (UNL) – "Molecular characterization of clinical isolates of the *Mycobacterium abscessus* complex circulating in Lisbon". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.

58. 2023/2025 - Co-supervisor of Natasha Luana Maniche Silva Wahnon – MSc Thesis Biomedical Sciences (IHMT/UNL) – "O papel do regulador global transcricional H-NS na resistência mediada por efluxo à colistina em Acinetobacter baumannii". Supervisor: Diana Machado | co-supervisor: Miguel Viveiros.

AWARDS:

2003 – Merit Award for Research in Infectious Diseases (2º Place) - Glaxo-Smithkline Fundation – Portuguese Society of Infectious Diseases - "A Implementação do Programa "TB-FAST-TRACK" de Combate à Tuberculose Multiresistente na Grande Lisboa - Implematantion of the TB-FAST-TRACK program in Lisboa".

2009 – Merit Award for Best Panel Communication National Congress of Microbiology and Biotechnology - Congresso Nacional de Microbiologia e Biotecnologia de 2009 - "Cell and Tissue Engineering, Biomaterials and Nanobiotechnologies". Authors: Veigas B., Perdigão J., Portugal I., Couto I., Viveiros M. and Baptista P.V. (2009) Use of Au-nanoprobes for the detection of SNPs associated with antibiotic resistance in *Mycobacterium tuberculosis*. Congresso Microbiotec 2009. Congresso Nacional de Microbiologia e Biotecnologia MicroBiotec09. Vilamoura (Portugal) 28 a 30 de November de 2009.

2012 – Santander/Totta – Universidade Nova de Lisboa - Merit Award 2012 - Prémio de Mérito Científico Santander Totta – Universidade Nova de Lisboa – Title: NanoTB - Nanodiagnostics for XDRTB at point-of-need. Miguel Viveiros (IHMT/UNL), Pedro Baptista (FCT/UNL), Isabel Couto (IHMT/UNL).

2017 - Seal of Excellence Europen Union - European Commission, Horizon 2020, EU Framework Programme for Research and Innovation 2014-2020 - Seal of Excellence awarded to The project proposal 750982, HEMIC - Unravelling the healthy microbiome against respiratory infections: a crucial step for the development of novel preventive measures to address chilhood mortality. Submitted under the Horizon 2020's Marie Skłodowska-Curie actions call H2020-MSCA-IF-2016 by Miguel LANASPA and Instituto de Higiene e Medicina Tropical. Supervisor Miguel Viveiros.
https://ec.europa.eu/research/soe/index.cfm?pg=what

2017 - Best Panel Communication on the Section "Health Microbiology and Biotechnology". Authors: Jéssica Antunes, Diana Machado, Isabel Couto, Teresa Pacheco, Judite Batista, Cristina Toscano, and Miguel Viveiros. 2017. "Correlation between carbapenem resistance, β-lactamases, porins and efflux pumps in *Acinetobacter baumannii* clinical isolates." Congresso Nacional de Microbiologia e Biotecnologia (MicroBiotec17). Porto, Portugal, 7-9 December 2017.

2018 – GILEAD AWARD - Programa Gilead GÉNESE, referência PGG/012/2017 - Aplicação de nanopartículas superparamagnéticas no diagnóstico rápido, simultâneo e não invasivo da infecção pelo VIH e da tuberculose. with Doutora Diana Machado and Doutor João Piedade.

2020 - PFIZER AWARD - Best Poster Communication at the III International Conference NOVAhealth Chronic Disease and Infection: Infection, Cancer and Global Health. Lisboa, Portugal. 9 October 2020 (Online conference). Authors: Diana Machado, Marco Pieroni, Miguel Viveiros. 2020. Targeting Mycobacterium tuberculosis membrane energetics with lipophilic efflux inhibitors as adjuvants of tuberculosis treatment.

SELECTED INVITED LECTURES (N=34):

1. **Viveiros M**. (2009). "*Evaluation of efflux pumps of Mycobacteria by a semi-automated EB method*". Invited Speaker at COST Action BM0701: Antibiotic Transport and Efflux: New Strategies to combat bacterial resistance (ATENS), Cracóvia (Polónia), 18 may 2009.

2. **Viveiros M**. (2010). "*Cutaneous infections caused by mycobacteria*". Invited Speaker at the Spring Meeting of the Portuguese Society of Dermatology and Venerial Diseases. V. N. Gaia (Portugal), 23 - 24 April 2010.

3. **Viveiros M**. (2011). "*Atypical Mycobacteriosis - Infecções por micobacterias atípicas*". Invited Speaker at the XII Jornadas Nacionais de Infecciologia Pediátrica. Braga (Portugal), 19 - 21 de May 2011.

4. **Viveiros M**. (2011). "*Direct detection of resistance in Mycobacterium tuberculosis: from line to nano-probe assays*." Invited Speaker at the World TB Day Conference - Contribution of scientific research in the fight against tuberculosis. Institute of Tropical Medicine, Antwerpia, (Belgica), a 22 de Março de 2011.

5. **Viveiros M**. (2011). "*Resistencia fisiológica em Mycobacterium tuberculosis: impacto na resistência adquirida e novas estratégias quimioterapeuticas adjuvantes*". Invited Speaker at the Simpósio Internacional de Tuberculose Avanços e desafios no século XXI 02 e 03 de Dezembro de 2011.

6. **Viveiros M**. (2012). "*Cost-efficient diagnosis of tuberculosis: culture, molecular techniques and immunological markers*". Invited Speaker at the European Congress of Clinical Microbiology and Infectious. 22nd European Congress of Clinical Microbiology and Infectious Diseases, London, United Kingdom, 31 March – 3 April 2012.

7. **Viveiros M**. (2012). "*Test de susceptibilidad cuantitativo de 1ª y 2ª línea para Mycobacterium tuberculosis usando lo BACTEC MGIT 960 con software TB eXiST : un protocolo en desarrollo en Europa*". Invited Speaker at the XVI Reunion del grupo español de Micobacteriologia - GEM 2012. Cordoba 22 – 24 March 2012

8. **Viveiros M**. (2012). "*The semi-quantitative drug susceptibility test of 1st and 2nd line drugs for Mycobacterium tuberculosis using the MGIT 960TBTM culture system coupled with the BD EpiCenter ™ TB-eXiST software*". XIV Simpósio Brasileiro de Micobactérias - XXI Congreso Latinoamericano de Microbiología. Santos, São Paulo, Brasil. 1-5 November 2012.

9. **Viveiros M**. (2013). "*Significance of Efflux in Multidrug resistance in Mycobacterium tuberculosis"*. Invited Speaker at the Gordon Research Conferences. Multi-Drug Efflux Systems. Shared Molecular Mechanisms but Diverging Roles in Physiology and Medicine. Four Points Sheraton / Holiday Inn Express, Ventura, (CA, USA), March 17-22.

10. **Viveiros M**. (2013). Epidemiology of infections due to NTM. Speaker at the Infections due to non-tuberculous mycobacteria: Educational Workshop – 23rd European Congress of Clinical Microbiology and Infectious (ECCMID). European Congress of Clinical Microbiology and Infectious Diseases, Berlin (Germany), 31 March to 3 April 2013.

11. **Viveiros M**. (2013) "*O Projecto FORDILAB-TB Formação em Diagnóstico Laboratorial de Tuberculose no espaço da CPLP*". Seminar: Innovations for Tuberculosis Control, Maputo (Mozambique) 14 – 16 May 2013.

12. **Viveiros M**. (2013) "*Estética y MNT. Un problema emergente en Portugal*". XVII Taller Internacional sobre Tuberculosis, Barcelona (Spain) 4 – 5 November 2013.

13. **Viveiros M**. (2014) "*Efflux inhibitors as adjuvants in drug resistant tuberculosis therapy*". World's Tuberculosis day international conference, Ghent University "Het Pand", Gent, Belgium. 21st March 2014.

14. **Viveiros M**. (2014)."*How to diagnose mycobacterial infections in low-income countries*": Educational Workshop – Invited Speaker at the 24th European Congress of Clinical Microbiology and Infectious (ECCMID). European Congress of Clinical Microbiology and Infectious Diseases, Barcelona (Spain), 10th May 2014.

15. **Viveiros M**. (2014) "*Efflux inhibitors against drug resistant Mycobacterium tuberculosis: adjuvants of antimycobacterial agents and enhancers of macrophage killing activity*". Invited Speaker at the VII Meeting of the Latin-American Society of Tuberculosis and other Micobacteriosis (SLAMTB), Canela, (Brazi)l. 15th September 2014.

16. **Viveiros M**. (2014) "*Programatic Implementation of Molecular Tests for TB diagnoses in low and middle income countries – Challenges and Perspectives*". Invited Speaker at the IV National Workshop of Brazilian Tuberculosis Research Network (REDETB), Canela, (Brazil). 15th September 2014.

17. **Viveiros M**. (2014) "*Infecções respiratórias: tuberculose pulmonar - novos métodos de identificação e detecção de resistências* 2- I Jornadas do Médico Interno de Patologia Clínica. Ordem dos Médicos, Lisboa, (Portugal), 26th September 2014.

18. **Viveiros M.** (2015) "*Efflux Modulators as Adjuvants of Anti-Tuberculosis Therapy and Enhancers of Macrophage Killing Activity: A New Concerted Strategy Against Drug Resistant Mycobacterium tuberculosis"*. Invited Speaker at the Gordon Research Conferences. Multi-Drug Efflux Systems: A Paradigm Shift from Fundamental Mechanisms to Practical Applications. Renaissance Tuscany Il Ciocco Resort; Lucca (Barga), (Italy), April 26th-May 1st 2015.

19. **Viveiros M**. (2016). How to diagnose mycobacterial infections in low-income countries: Educational Workshop – Invited Speaker at the 24th European Congress of Clinical Microbiology and Infectious (ECCMID). European Congress of Clinical Microbiology and Infectious Diseases, Barcelona (Spain), 10th May 2014.

20. **Viveiros M**. (2016) "*Molecular Techniques will substitute Phenotypic Traditional approaches for MDR/XDR TB diagnosis?*" Invited Speaker at the V National Workshop of Brazilian Tuberculosis Research Network (REDETB), Maceió (Brazil). 22nd August 2016.

21. **Viveiros M.** (2018) "*Antimicrobial resistance: new mutations of Mycobacterium leprae"*. Invited Speaker and Session moderator at the Innovative tools and approaches to end the transmission of Mycobacterium session of the 15º Congresso Brasileiro de Hansenologia., Palmas – Tocantins (Brasil), 13 a 17 de Novembro de 2018.

22. **Viveiros M.** (2019) "*Anti-Microbial Resistance (AMR) in Tuberculosis and Non-Tuberculosis Mycobacteria: a slow selective process in progress in One-Health, One-World*" Invited Speaker at the ICOHAR 2019 - ICOHAR International Conference on One Health Antimicrobial Resistance, Utrecht, (Netherlands) 16-18 April 2019

23. **Viveiros M.** (2019) "*Novas Tecnologias e o Futuro do Diagnóstico Laboratorial da Tuberculose*". Speaker at the I Seminário Amazônico de Pesquisa Clínica em Tuberculose organised by the Fundação de Medicina Tropical- Dr. Heitor Vieira Dourado (FMT-HVD) – Amazonas University. (Brasil). 19 June – 21 June 2019.

24. **Viveiros M.** (2019) "*Multidrug resistance in tuberculosis and nontuberculous mycobacteria: a slow selective process in progress in One-Health/One-World*". Plenary Key-Note speaker at ASM South Australia 2019 – the Annual Scientific Meeting & Exhibition organised by the Australian Society for Microbiology. ASM South Australia 2019: Adelaide (Australia). 30 June - 3 July 2019.

25. **Viveiros M.** (2019) "*Mycobacterium tuberculosis* strains and their influence in the clinical evolution and response to therapy: Therapeutic constraints", Speaker at the Pneumo RIO 2019 - XVII Congresso de Pneumologia e Tisiologia do Estado do Rio de Janeiro – the XVII Annual Scientific Meeting & Exhibition co-organised by the Brasilian Society for Pneumology. XVIIº SOPTERJ Congress 2019 Rio de Janeiro (Brasil). 11 September- 14 September 2019.

26. **Viveiros M.** (2019) "*Mycobacterium tuberculosis* strains and their influence in the clinical evolution and response to therapy: Therapeutic constraints"., Speaker at the 35º Congresso Nacional de Pneumologia 2019 – the Annual Scientific Meeting & Exhibition organised by the Portuguese Society for Pneumology. 35º SPP Congress 2019 Albufeira (Algarve, Portugal). 7 November- 9 November 2019.

27. **Viveiros M.** (2020) "*Development of new efflux pumps inhibitors for chemotherapeutic interventions against non tuberculous mycobacteria diseases"*, Speaker at the 40º RÉUNION INTERDISCIPLINAIRE DE CHIMIOTHÉRAPIE ANTI-INFECTIEUSE - RICAI 2020 – Online- Paris (France). 14 December- 15 December 2020.

28. **Viveiros M.** (2021) "*Avanços e novos desafios no diagnóstico da tuberculose*"., Speaker at the 56ª edition of the Congresso da Sociedade Brasileira de Medicina Tropical - MEDTROP PLAY 2021. Online (Brasil). 24 Outubro- 27 Outubro 2021.

29. **Viveiros M.** (2022) "*From smear microscopy to whole genome sequencing: challenges of the laboratory diagnosis of tuberculosis in the 21st century"*, Speaker at the The last word belongs to microbes - Celebrating the 200th anniversaryof the birth of LOUIS PASTEUR Conference, Warsaw (Poland). 29 November - 30 November 2022.

30. **Viveiros M**. (2023) "*Translocation and Drug Resistance in Tuberculosis: The Forgotten Factor*". Invited Speaker at the Gordon Research Conferences. Multi-Drug Efflux Systems - Targeting the Mechanisms and Regulation of Transporters for Advancing Health During a Pandemic. - Galveston, (TX, US). March 26 - 31, 2023.

31. **Viveiros M**. (2023) "*Novos fármacos para TB: bedaquilina, delamanida e pretomanida*"., Speaker at the 57ª edition of the Congresso da Sociedade Brasileira de Medicina Tropical - MEDTROP 23 - X WORKSHOP Nacional da REDE-TB-Salvador 2023 – Salvador (Brasil). 10 September – 13 September 2023.

32. **Viveiros M**. (2024) "O papel do sequenciamento genético de nova geração no diagnóstico da tuberculose droga resistente." Speaker at the 58th edition of the Congresso da Sociedade Brasileira de Medicina Tropical - MEDTROP 24 - XI WORKSHOP Nacional da REDE-TB-São Paulo 2024 – São Paulo (Brasil). 24 September – 26 September 2024.

33. **Viveiros M**. (2024) "One Health: Antimicrobial Resistance - an ongoing syndemic. Speaker at the Tropical Summit the Lisbon Congress Center, - Lisboa (Portugal). 4 to 7 November 2024.

34. **Viveiros M**. (2024) "Determinantes fenotípicos e genotípicos de resistência em micobactérias". Speaker at the IIas Jornadas de Microbiologia Clínica do Hospital de São António, Porto (Portugal). 7 to 9 November , 2024.

CONFERENCE ORAL AND POSTER COMMUNICATIONS (N >250).

A selection of the most relevant oral and poster communications in international conferences can be found in the NOVA Research Portal link :

https://novaresearch.unl.pt/en/persons/miguel-viveiros-bettencourt/publications/