Address:
Otília V. Vieira, Ph.D.
CEDOC - Centro de Estudos de Doenças Crónicas
Faculdade de Ciências Médicas
Universidade Nova de Lisboa
Campo Mártires da Pátria, 130
1169-056 Lisboa
Portugal
e-mail: otilia.vieira at fcm.unl.pt

http://cedoc.unl.pt/lysosomes-in-chronic-human-pathologies-and-infection/

Citations:

Google Scholar - **http://scholar.google.pt/citations?user=wIu8YuIAAAAJ&hl=pt-PT**

Scopus - **http://www.scopus.com/authid/detail.url?authorId=6701346609**

Academic Degrees:

2000: Ph.D. in Pharmacy at the University of Coimbra and Paul-Sabatier, Toulouse France.
1995: MSc in Medicines Technology, University of Coimbra, Portugal
1993: Pharmacist, University of Coimbra, Portugal

Employment:

2014 – present: invited assistant professor (professor auxiliar convidado) at Universidade Nova de Lisboa; Faculdade de Ciências Médicas; Lisboa, Portugal
2014 – present: investigator (Principal Investigator, FCT-Investigator) at Universidade Nova de Lisboa; Faculdade de Ciências Médicas; Lisboa, Portugal
2006-2014: Group-leader (Auxiliar Investigator) at the Center for Neurosciences and Cell Biology, University of Coimbra
1993: Pharmacist, Lourinhã, Portugal.
1991-1993: Teaching Assistant, in the laboratory of Bromatology, Nutrition and Hidrology, Faculty of Pharmacy, University of Coimbra.

Research Activities:

1993 – 1995: Master student in Laboratório de Bioquímica da Faculdade de Farmácia Universidade de Coimbra. (supervisor: Drª. Leonor Martins de Almeida)
1995 – 1999: PhD student in the Department of Biochemistry, Metabolic Disease Section, Faculty of Medicine in Rangueil of the Paul-Sabatier University, Toulouse, France and in the Laboratório de Bioquímica da Faculdade de Farmácia, Universidade de Coimbra, Portugal. [supervisores: Prof. Leonor Martins de Almeida (Coimbra), and Prof. Robert Salvayre (Toulouse)].
2000 – 2002: Postdoc, Hospital for Sick Children, Division of Cell Biology, Toronto, Canada. (Supervisor: Prof. Sergio Grinstein)

2002 – 2005: Postdoc, Max-Planck Institute for Molecular Cell Biology and Genetics, Dresden, Germany. (Supervisor: Prof. Kai Simons)
2006 – 2014: Group-leader, at the Center for Neurosciences and Cell Biology, University of Coimbra, Portugal (http://www.cnbc.pt/research/areaF3_2.asp?lg=2).

Prizes and Awards:
1993: Awarded the "Sociedade Farmacêutica Lusitana" Prize for the highest classified student finishing the Licenciate course in Pharmacy at the University of Coimbra.
10/1993-10/1995: MSc fellowship from FCT.
1997: Merck Sharpe & Dohme Prize for the presentation entitled "Antioxidation of the Human Low density lipoproteins Antioxidação. New Biochemical mechanisms for dietary compounds", at the VII Congresso Português de Aterosclerose, Luso (Portugal).
12/1995-11/1999: PhD fellowship from FCT.
04/2000-11/2002: Post-doctoral Fellow from Foundation for Science and Technology (FCT), Portugal.
05/2002: Post-Doctoral EMBO Fellowship. Declined after acceptance of the Marie-Curie Fellowship.
12/2002-12/2004: Marie-Curie Post-doctoral Fellow of the European Community.
12/2004-12/2005: Max-Planck Society post-doctoral fellowship.
2011: "Bolsa de Ignição" for Scientific projects with high potential to start a company, Univ. Coimbra.
2012: Arrisca C2011- ACIC AWARD for the best business ideas, Univ. of Coimbra.
2013: FCT Investigator

Funded projects:
2007 – 2010:"Role and Molecular Mechanisms Underlying CD36-Mediated Phagocytosis of Apoptotic Cells: Implications for Atherosclerosis" (PTDC/SAU-MII/66285/2006), Fundação para a Ciência e a Tecnologia. Principal Investigator. Total budget: € 160.000,00

2011:"Surfactants in the Prophylaxis of Sexually Transmitted Infections". Bolsa de Ignição da Universidade de Coimbra. Principal Investigator. Total budget: € 10,000.00

2011 – 2014:"Role of RabGTPases On Phagocytosis And Phagosomal Maturation Of IgG-Opsonized Heat-killed and Mycobacterium tuberculosis" (PTDC/BIA-BCM/112138/2009), Fundação para a Ciência e a Tecnologia. Principal Investigator. Total budget: € 193,257.00

2012:"Síntese de novos surfatantes e sua avaliação como microbicidas para uso tópico em doenças sexualmente transmissíveis". Prémio Arrisca C 2011- Prémio ACIC – Concurso de ideias de negócio. Principal Investigator. Total budget: € 4,000.00

2012 – 2015: "A New Approach to Fight Tuberculosis" (HMSP-ICT/0024/2010), Harvard Medical School-Portugal Program (Fundação para a Ciência e a Tecnologia). Principal Investigator. Total budget: € 599.997.00

Publications
1. J.A.N. Laranjinha, **O. Vieira**, V.M.C. Madeira, and L.M. Almeida (1995). Two related phenolic antioxidants with opposite effects on vitamin E content in low

density lipoproteins. Consumption versus regeneration. *Arch. Biochem. Biophys.* 323:373-381.

2. J.A.N. Laranjinha, **O. Vieira**, V.M.C. Madeira, and L.M. Almeida (1996). Inhibition of metmyoglobin/H2O2-dependent LDL lipid peroxidation by naturally ocurring phenolic acids. *Biochem. Pharmacol*. 51:395-402.

3. **O. Vieira**, J.A.N. Laranjinha, V.M.C. Madeira, and L.M. Almeida (1996). A rapid isolation of low density lipoproteins in a concentrated fraction free from water-soluble plasma antioxidants. *J. Lipid Res.* 37:379-385.

4. **O. Vieira**, I. Blanc, J.A.N. Laranjinha, L.M. Almeida, R. Salvayre, and A. Nègre-Salvayre (1998). Effect of Dietary phenolic compounds on apoptosis of human cultured endothelial cells induced by oxidized LDL. *Br. J. Pharmacol*. 123:565-573.

5. **O. Vieira**, J.A.N. Laranjinha, V.M.C. Madeira, and L.M. Almeida (1998). Cholesteryl ester hydroperoxide formation in myoglobin-catalyzed loe density lipoprotein oxidation - Concerted antioxidant activity of caffeic and p-coumaric acids with ascorbate. *Biochem. Pharmacol*. 55:333-340.

6. **O.Vieira**, I. Escargueil-Blanc, G. Jürgens, C. Borner, L. Almeida, R. Salvayre, and A. Nègre-Salvayre (2000). Oxidized LDL alter the activity of the ubiquitin-proteasome pathway. Potential role in LDL-induced apoptosis. *FASEB J.* 14(3):532-542.

7. N. Vacaresse*, **O. Vieira***, F. Robbesyn, G. Jurgens, R. Salvayre, and A. Negre-Salvayre (2001). Phenolic antioxidants trolox and caffeic acid modulate the oxidized LDL-induced EGF-receptor activation. (* equally contributed). *Br. J. Pharmacol.* 132(8):1777-1788.

8. **O.V.Vieira**, R.J. Botelho, L. Rameh, S.M. Brachmann, T. Matsuo, H.W. Davidson, A. Schreiber, J.M. Backer, L. Cantley, and S. Grinstein (2001). Distinct roles of class I and class III phosphatidylinositol 3-kinases in phagosome formation and maturation. *J. Cell Biol.* 155(1):19-25. * Comment on J. Cell Biol. 155(1):15-17.

9. M.R. Terebiznik, **O.V.Vieira**, S. Marcus, W.S. Trimble, T. Meyer, B.B. Finlay, and S. Grinstein (2002). Elimination of host cell PI(4,5)P2 by the phosphatase SopB/SigD promotes membrane fission during invasion by Salmonella. *Nature Cell Biol.* 4(10):766-773. Comment on J. Cell Biol. 159(2):200.

10. **O.V. Vieira**, C. Bucci, R. Harrison, W.S. Trimble, L. Lanzetti, J. Gruenberg, A. D. Schreiber, P.D. Stahl, and S. Grinstein (2003). Modulation of Rab5 and Rab7 recruitment to phagosomes by phosphatidyl-inositol 3-kinase. *Mol. Cell. Biol*. 23(7):2501-2514.

11. F. Robbesyn, V. Garcia, N. Auge, **O. Vieira**, M.F. Frisach, R. Salvayre, and A. Negre-Salvayre (2003). HDL couterbalance the proinflammatory effect of oxidized LDL by inhibiting intracellular reactive oxygen species rise, proteasome activation and subsequent NF-kappaB activation in smooth muscle cells. *FASEB* J. 17(6):743-5.

12. R. Harrisson, C. Bucci, **O.V.Vieira**, T.A. Schroer, and S. Grinstein (2003). Phagosomes fuse with late endosomes and/or lysosomes by extension of

membrane protrusions along microtubules:role of Rab7 and RILP. *Mol. Cell. Biol*. 23(18):6494-6506.

13. **O.V.Vieira**, R. Harrison, C. Scott, H. Stenmark, D. Alexander , J. Liu , J. Gruenberg, A.D. Schreiber, and S. Grinstein (2004). Acquisition of Hrs, an essential component of phagosomal maturation, is impaired by mycobacteria. *Mol. Cell. Biol.* 24(10):4593-4604.

14. **O.V.Vieira**, P. Verkade, A. Manninen and K. Simons (2005). FAPP2 is part of the apical transport machinery in polarized MDCK cells. *J. Cell Biol*. 170(4):521-526.

15. **O.V.Vieira**, K. Gaus, P. Verkade, W.L.C. Vaz and K. Simons (2006). FAPP2, cilium formation and the compartmentalization of the apical membrane in polarized MDCK cells. *Proc. Natl. Acad. Sci. USA* 103(49):18556-18561. Comment on Proc. Natl. Acad Sci USA 103(49):18383-18384.

16. D. Halter, S. Neumann, S.M. van Dijk, J. Wolthoorn, A.M. de Mazière, **O.V.Vieira**, P. Mattjus, J. Klumperman, G. van Meer, and H. Sprong (2007). Pre- and Post-Golgi Translocation of Glucosylceramide in Glycosphingolipid Synthesis. J. *Cell Biol.* 179(1):101-115. Comment on J. Cell Biol. 179(1):11-13.

17. **O.V.Vieira[1]**, D.O. Hartmann, C.M. Cardoso, D. Oberdoerfer, M. Baptista, M. Santos, L. Almeida, J. Ramalho-Santos and W.L.C. Vaz (2008). Surfactants as microbicides and contraceptive agents: a systematic in vitro study. PloS ONE 3(8):e2913. [1]Corresponding author.

18. C.M. Cardoso, L. Jordão and **O.V.Vieira[1]** (2010). Rab10 is required for phagosome maturation and its overexpression can change the fate of Mycobacterium-containing phagosomes. *Traffic* 11(2):221-35. [1]Corresponding author.

19. A. Inácio, K. Mesquita, M. Baptista, J. Ramalho-Santos, W.L.C. Vaz and **O.V. Vieira[1]** (2011). In vitro surfactant structure-toxicity relationships: implications for surfactant use in sexually transmitted infection prophylaxis and contraception. PloS ONE 6(5):e19850. [1]Corresponding author.

20. R. Ferreira, T. Santos, M. Viegas, L. Cortes, A.P. Silva, S. Xapelli, L. Bernardino, **O.V.Vieira**, and J.O. Malva (2011). Neuropeptide Y inhibits interleukin-1 beta (IL-1β)-induced phagocytosis by microglial cells. *J. Neuroinflammation* 8(169):1-15.

21. L.M.B.B. Estronca, J. Silva, J. Sampaio, A. Shevchenko, P. Verkade, W.L.C. Vaz and **O.V.Vieira[1]** (2012). Molecular Etiology of Atherogenesis - In Vitro Induction of Lipidosis in Macrophages with a New LDL Model. PLoS One. 2012;7(4):e34822. [1]Corresponding author

22. M.S. Viegas, L.M.B.B. Estronca, **O.V.Vieira[1]** (2012). Comparison of the Kinetics of Maturation of Phagosomes Containing Apoptotic Cells and IgG-Opsonized Particles. PLoS One. 2012;7(10): e48391. [1]Corresponding author

23. A. Inácio, G. Costa, M. S. Santos, A. J. M. Moreno, W.L.C. Vaz and **O.V.Vieira[1]** (2013). Mitochondrial Dysfunction is the Focus of Quaternary Ammonium Surfactant Toxicity to Mammalian Epithelial Cells. Antimicrobial Agents and Chemotherapy. 2013; 57 (6):2631-9. [1]Corresponding author

    This article is now featured online on Global Medical Discovery [ISSN 1929-8536] (http://globalmedicaldiscovery.com).

24. AS Mello, MP Goldim, J Mezzalira J, CS Garcia, VV Daitz, CD Castilhos, MS Viegas, **OVVieira**, JC Coelho (2014). LAMP2 as a marker of EBV-mediated B lymphocyte transformation in the study of lysosomal storage diseases. *Mol Cell Biochem.* 2014; 385:1-6.

25. A. Silva, L. Naia, A. Dominguez, M. Ribeiro, J. Rodrigues, **O.V.Vieira**, V. Lessmann and A. C. Rego (2015). Overexpression of BDNF and FL-TrkB receptor ameliorate striatal neural survival in Huntington's disease. *Neurodegenerative Diseases*. Accepted for publication.

26. **O.V. Vieira**, R.J. Botelho, and S. Grinstein (2002). Phagosome maturation: Aging gracefully. *Biochem J.* 366(Pt 3):689-704.

27. A. Negre- Salvayre, **O. Vieira**, I. Escargueil-Blanc, and R. Salvayre (2003). Oxidized LDL and 4-hydroxynonenal modulate tyrosine kinase receptor activity. *Mol. Aspects Med*. 24:251-261.

28. M.L. Jordão and **O.V.Vieira**[1](2011). Tuberculosis: new aspects of an old disease. *Int. J. Cell Biol*. 2011:403623. [1]Corresponding author.