



João Passos

João Passos is originally from Porto, Portugal where he studied biochemistry at the University of Porto. He was awarded a scholarship by the graduate program GABBA from the University of Porto and conducted his PhD at Newcastle University under the supervision of Prof. Tom Kirkwood. He remained in Newcastle University as a Research Associate at the BBSRC-funded Centre for Integrate Systems Biology of Ageing and Nutrition in Thomas von Zglinicki's lab and

temporarily at the Max Planck Institute for Stem Cell ageing in Ulm, Germany. In 2010, João was awarded the highly prestigious BBSRC David Phillips Fellowship which allowed him to set up his own laboratory and is currently a Reader in Molecular Biology of Ageing. His group is investigating the molecular mechanisms driving cellular ageing, with a focus on the interaction between telomeres and mitochondria.

João Passos has published more than 50 papers in leading scientific periodicals on the subject of biology of ageing. Work in his laboratory is funded by BBSRC, Medical Research Council, British Heart Foundation, European Union and Unilever. João is an editor for several journals in the ageing field, including *Ageing Cell*. He is a member of the BBSRC pool of experts panel and deputy leader for "Understanding the Mechanisms of Ageing theme" at the Newcastle University Institute for Ageing.

Selected publications:

1. C Correia-Melo, G Ichim, SW Tait, **JF Passos**. Depletion of mitochondria in mammalian cells through enforced mitophagy. *Nature Protocols* 2017 Jan;12(1):183-194. doi: 10.1038/nprot.2016.159
2. C Correia-Melo, F DM Marques, R Anderson, G Hewitt, R Hewitt, BM Carroll, SMiwa, A Merz, MD Rushton, M Charles, D Jurk, SWG Tait, R Czapiewski, J Birch, LC Greaves, G Nelson, M Bohlooly-Y, S Rodriguez-Cuenca, A Vidal-Puig, DA Mann, G Saretzki, G Quarato, D Green, PD Adams, T von Zglinicki, VI Korolchuk, **JF Passos**.

Mitochondria are required for pro-ageing features of the senescent phenotype. (2016) *EMBO J* doi:10.15252/embj.201592862

3. G Hewitt, B Carroll, R Sarallah, C Correia-Melo, M Ogronik, G Nelson, D Manni, R Antrobus, BA Morgan, T von Zglinicki, D Jurk, V Gorbunova, T Johansen, **JF Passos*** VI Korolchuk* p62/SQSTM1 mediates cross-talk between autophagy and UPS in DNA repair (2016) *Autophagy* 2;12(10):1917-1930. *shared senior and corresponding authors
4. G Hewitt, D Jurk, FDM Marques, C Correia-Melo, T Hardy, A Gackowska, R Anderson, M Taschuk, J Mann and **JF Passos** Telomeres are favoured targets of a persistent DNA damage response in ageing and stress-induced senescence (2012) *Nature Communications* DOI:10.1038/ncomms1708.
5. **JF Passos**, G Nelson, C Wang, T Richter, C Simillion, CJ Proctor, S Miwa, S Olijslagers, J Hallinan, A Wipat, G Saretzki, KL Rudolph, T Kirkwood and T von Zglinicki Feedback between p21 and reactive oxygen production is necessary for cell senescence (2010) *Molecular Systems Biology* 2010;6:347
6. **JF Passos**, G Saretzki, Ahmed S, Nelson G, Richter T, H Peters, I Wappler, M Birket, G Harold, K Schaeuble, M Birch-Machin, T Kirkwood, T von Zglinicki Mitochondrial dysfunction accounts for the stochastic heterogeneity in telomere-dependent senescence. (2007) *PLoS Biology*. May;5(5):e110