

### Research Fellowship (m/f)

**Project title:** “The Impact of Aneuploidy on Adult Stem Cell Behavior”

(financiado pelo OE, no âmbito do PIDDAC - e através da Fundação para a Ciência e a Tecnologia), nas seguintes condições:

**Reference:** PTDC/BEX-BCM/1921/2014

**Internal Reference:** PR041804

#### **Candidate profile:**

We are looking for candidates with a Master's degree in Biology, Biochemistry and related fields with a final score of 18 or higher. The candidate must have experience and full autonomy in *Drosophila* genetics, cell biology, molecular biology and confocal microscopy. Knowledge of English language, both spoken and written, and good interpersonal qualities in the context of a multidisciplinary research team are also essential attributes.

#### **Background and work plan:**

Aneuploidy is associated with different human diseases, particularly cancer, but how different cell types within adult tissues respond to aneuploidy is not fully understood. In some studies, aneuploidy has been shown to have a deleterious effect and lead to cell death, however it has also been shown to be a causal event of tumorigenesis in other contexts.

Our recently published data, allowed us to conclude that *Drosophila* intestinal stem cells (ISCs) tolerate aneuploidy and do not activate apoptosis. Instead, generation of aneuploid ISCs results in tissue dysplasia characterized by an accumulation of progenitor cells and high stem cell proliferation. This powerful model can now be exploited to tackle the following key emerging questions, which the selected candidate will be involved:

- How aneuploidy fails to activate apoptosis in ISCs?
- Are aneuploid ISCs capable of driving tumorigenesis on transplant assays?
- What are the karyotypic and genotypic alterations driving ISCs aberrant behavior?

The work will be developed at the Chromosome and Genomic Stability group of i3S under the supervision of Claudio Sunkel.

**Application procedure:**

Applications should include a letter of motivation, CV and degree's certificate and should be submitted between 26<sup>th</sup> December 2018 and 9<sup>th</sup> January 2019 on the IBMC webpage:  
<http://www.ibmc.up.pt/gestaocandidaturas/index.php?codigo=PR041804>

**Legislation and applicable laws:** Employment at the IBMC is regulated by current laws relating to the Statute of Science Research Fellows of Fundação para a Ciência e Tecnologia, I.P. - 2015, namely Law 40/2004 of August 18, amended and republished by Decree-Law No. 202/2012 of 27 August and the Regulation of Scientific Research Studentships of the IBMC approved by Fundação para a Ciência e Tecnologia ([www.ibmc.up.pt/fellowships.php](http://www.ibmc.up.pt/fellowships.php)).

**Evaluation of applications:**

The candidates will be evaluated initially based on the written documentation: CV (60%) and motivation letter (40%). The top 2 most qualified candidates will be selected for a personal interview and the final score will be based on written documentation (CV + motivation letter, 50%) and interview (50%).

**Jury:**

President: Claudio Sunkel (PhD);

Ordinary members: Pedro Resende (PhD), Carlos Conde (PhD)

**Grant conditions:**

The fellowship is due to start in February 1st 2019. The grant will be awarded for 6 months and is not renewable. The monthly amount of the fellowship is € 980 (<http://alfa.fct.mctes.pt/apoios/bolsas/valores>) paid by bank transfer.