



European Research Council



RESEARCH FELLOWSHIP (m/f)

Internal Reference: ERC651605

Title: The Pancreas Regulome: From causality to prediction of non-coding mutations in human pancreatic diseases.

Group and PI: Vertebrate Development and Regeneration; Jose Bessa

1 (one) Master degree Fellowship is available in the Vertebrate Development and Regeneration group headed by Dr. José Bessa at the Institute for Molecular and Cell Biology in Porto. The fellowship is funded for 3 months, extensible up to 3 years by an ERC Starting Grant.

Several human pancreatic diseases have been characterized, being the diabetes the most common. Like others, this genetic disease is related to disrupted non-coding cis-regulatory elements (CREs) that culminate in altered gene expression. Although Genome Wide Association Studies support this hypothesis, it's still unclear how mutations on CREs contribute to disease. The translation from the “non-coding code” to phenotype is an exciting and unexplored field that we will approach in this project with the help of the zebrafish as a suitable animal model. We aim to uncover the implications of the disruption of pancreas CREs and how they contribute to diabetes *in vivo*. A combination of the following approaches will be used in the context of transcriptional cis-regulation:

- Access the chromatin state genome wide, using Chromatin Immunoprecipitation and ATAC-seq.
- Bioinformatics.
- BAC recombeneering and BAC transgenesis.
- Crispr-Cas9 technology.



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Candidate profile :

We are looking for a Fellow holding a Master degree in Biology or related fields with a final score ≥ 16 . Candidates must have interest in the field of transcriptional cis-regulation and ambition to eventually develop a PhD thesis in this field. Creativity, curiosity, perseverance, dynamism and passion for basic science are essential attributes.

Application procedure:

Interested candidates should submit a) their CV, b) a motivation letter, and c) a reference letter via the online application system:

<http://www.ibmc.up.pt/gestaocandidaturas/index.php?codigo=ERC651605>

Applications should be submitted between January 23th and February 17th, 2017. Starting date of the fellowship is March 1st, 2017.

Selection Committee:

José Bessa (PhD), Carla Lopes (PhD), and Renata Freitas (PhD).

The fellowships are regulated by current laws relating to the Statute of Science Research Fellows, namely Law 40/2004 of August 18, and the Regulation of Scientific Research Studentships of the IBMC (www.ibmc.up.pt/fellowships.php).

The fellowship monthly amount is 980 Euros.