

## ANR funded Post-doc position in Marseille to explore the impact of maternal diabetes on heart development through epigenome profiling

This project is a translational multi-disciplinary program, aiming to improve our understanding and diagnosis of Congenital Heart Defects (CHDs). Environmental factors are known to contribute to CHDs, but the pathophysiology and associated gene-environment interactions are not well-known. Pregestational maternal diabetes is a well-established adverse environment for embryonic development, due to fetal exposure to elevated blood glucose levels. It is associated with a 5X increase in CHD incidence. In this project, innovative approaches will be used to investigate the impact of maternal diabetes on CHDs. To achieve this objective, this project integrates single cell molecular profiling with spatial phenotyping, to understand the molecular changes in response to diabetes that are conserved during human and murine heart development.

This project is highly multidisciplinary and will allow the post-doc research fellow to acquire diverse skills ranging from molecular biology (single cell multi-omics, epigenetic profiles), developmental biology (phenotypic characterization in transgenic mouse embryos) and imaging (multiplex fluorescent RNA-FISH).

Interested candidates should be experienced in mouse handling. Candidates must have a Ph.D degree, and can be a citizen of any country.

Candidates should send a Curriculum Vitae and a list of three referees to:  
[sonia.stefanovic@inserm.fr](mailto:sonia.stefanovic@inserm.fr)

Selected references: STEFANOVIC S *et al.* Elife. 2020 PMID: 32804075; van Eif VWW\*, STEFANOVIC S\* *et al.* Development. 2019 PMID: 30936179; STEFANOVIC S *et al.* Nat Commun. 2014 PMID: 24770533.

Lab webpage: <https://www.marseille-medical-genetics.org/s-stefanovic/>

Location: INSERM, MMG, U1251, Aix Marseille University, Marseille, France

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