Michael Weber
Ph.D.

UMR 7242
Biotechnology and Cell Signalling
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PhD position to study the regulation of DNA methylation in mammalian development

A PhD position is available in the research group of Michaël Weber in the laboratory Biotechnology and Cell Signaling (BSC) in Strasbourg, France.

Our team is investigating the functions and regulators of mammalian DNA methylation, an essential epigenetic mark catalyzed by DNA methyltransferases. DNA methylation plays pivotal roles in development and regulation of cellular identity in mammals, and its deregulation contributes to tumor progression. We combine molecular biology, functional genetics in the mouse, epigenome mapping by Next Generation Sequencing and bioinformatics.

The PhD student will work on a project aiming at better understanding the role of DNA methylation in the regulation of cell identity during development. The project will involve the generation and characterization of mouse models with a conditional inactivation of the DNA methyltransferases, combined with genomics technologies to map the methylome and transcriptome, molecular biology and functional studies (Cripsr/cas9) in mouse embryonic stem cells.

The PhD student will integrate a young and dynamic team funded by ANR and ERC, with bioinformatics support and access to facilities for the success of the project. The host institute, affiliated to the CNRS and the University of Strasbourg, is located in the Illkirch research campus south of Strasbourg, which brings together several research institutions and offers access to state-of-the-art facilities.

The PhD position is funded for 3 years starting from October 2018. The salary is according to the rules of the University of Strasbourg.

More information on the host laboratory can be found at http://bsc.unistra.fr

Some recent publications:

Auclair G, Borgel J, Sanz LA, Vallet J, Guibert S, Dumas M, Cavelier P, Girardot M, Forné T, Feil R*, **Weber M*** (2016). EHMT2 directs DNA methylation for efficient gene silencing in mouse embryos. *Genome Research* 26:192-202.

Auclair G, Guibert S, Benber A, **Weber M** (2014). Ontogeny of CpG island methylation and specificity of DNMT3 methyltransferases during embryonic development in the mouse. *Genome Biology* 15:545.

Guibert S, Forne T, **Weber M** (2012). Global profiling of DNA methylation erasure in mouse primordial germ cells. *Genome Research* 22:633-641.

Borgel J, Guibert S, Li Y, Chiba H, Schübeler D, Sasaki H, Forne T, **Weber M** (2010). Targets and dynamics of promoter DNA methylation during early mouse development. *Nature Genetics* 42:1093-100.

Application:

We are looking for a highly motivated student, independent and creative, with a Master's Degree in Molecular or Developmental Biology. Prior experience with mouse work is highly desirable. A previous experience related to epigenetics and gene regulation is a plus. Applications should include a cover letter, a CV and contact information for at least two references.

Applications and informal inquiries about the position can be sent by email to :

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