

## Post-doc position

### **Notochordal differentiation and stem cell therapy to regenerate intervertebral disc (INSERM, Nantes, France)**

The research project focuses on regenerative medicine of the intervertebral disk (IVD), developing innovative in vitro induced pluripotent stem cells (iPSC) differentiation systems and investigating cell supplementation strategies in degenerative disk disease (DDD). DDD primarily affects the central part of the IVD namely the *nucleus pulposus* (NP). DDD is characterized by massive cellular alterations of the NP that ultimately result in the irreversible disappearance of notochordal cells. This project combines fundamental studies on the biology of the notochordal precursors, the maturation and physiology of the NP and preclinical in vivo approaches on mouse and sheep models. The project will involve cell culture and differentiation, characterization of cell phenotypes and functions (molecular biology, quantitative expression analysis: RT-QPCR, high-throughput transcriptomic analysis, single cell technology, immunofluorescence, immunohistochemistry, imaging analysis).

A 24 months-postdoctoral position (ANR contract) in stem cell differentiation and regenerative medicine is available at the centre for osteoarticular and dental tissue engineering (INSERM UMRS 791) and center of research in transplantation and immunology (INSERM UMRS 1064). Position is open from January 2016.

The successful candidate (PhD or equivalent diploma) will be a highly motivated biologist with strong expertise in stem cell biology or/and molecular biology. Good written and oral communication skills are essential, along with the ability to work in a team. Autonomy in experimental design and data analysis is a prerequisite.

Applicants are invited to send a CV and cover letter including a brief statement of past scientific experiences and achievements and contact details of 3 references to Laurent DAVID, Jerome GUICHEUX and Anne CAMUS  
[laurent.david@univ-nantes.fr](mailto:laurent.david@univ-nantes.fr), [jerome.guicheux@univ-nantes.fr](mailto:jerome.guicheux@univ-nantes.fr), [Anne.Camus@univ-nantes.fr](mailto:Anne.Camus@univ-nantes.fr)