Postdoctoral Position: "Modeling viral infections of the central nervous system using primary human neural cells: application to antiviral drug discovery through image-based high throughput analyses."

A postdoctoral position, funded by the Laboratory of Excellence Integrative Biology of Emerging Infectious Diseases (LabEx IBEID: http://www.pasteur.fr/labex/ibeid), is available for 1 year (a possible prolongation may be discussed) in the "Virology" research unit directed by Stéphan Zientara at the Alfort Veterinary School (ENVA) in Maisons-Alfort.

Description
Our team studies viral infection in the human and/or equine brain (*Brnic et al., 2012, Donadeu et al., 2013a, Donadeu et al., 2013b, Scordel et al., 2015*). Currently, we are focusing on neurotropic viruses of the *Flaviviridae* family such as Tick-Borne Encephalitis Virus, Zika virus, West Nile virus and Japanese Encephalitis Virus. We recently developed a new model of Tick Borne Encephalitis Virus infection using primary neural cells derived from human neural progenitors (*manuscript in preparation*). Using this model, we set up an image-based high-throughput/high content screen for the identification of antiviral drugs that inhibit TBEV infection in the brain and validate it by performing a first screen of a 100 of small molecules (*manuscript in preparation*). This is a powerful model that allows rapid screening of small molecules for their antiviral (and neuroprotective) properties with high potential to predict *in vivo* activity.

The successful candidate will pursue our efforts to [1/] identify new antiviral drugs by screening banks of small molecules, [2/] work at elucidating their mechanisms of action and [3/] model viral infection by other neurotropic viruses and test antiviral drugs on these models. He/she will receive a training in state-of-the-art image-based screening and neural cultures derived from human neural progenitors.

Research Fields
Biological sciences – Biology – neuro-virology – antiviral drugs

Career Stage
Experienced researcher or 2-5 yrs Post-Doc

Research Profiles
Recognized Researcher (R2).

Comment/web site for additional job details
Candidate requirements: The successful candidate is expected to have a solid background in cellular biology (primary cells) and molecular biology. A knowledge on genetic manipulation of viruses (such as *Flaviviridae*, *Alphaviridae*, *Mononegavirales*) or animal experiments as well as a knowledge about host-virus interactions is highly welcomed.

Requirements: PhD in relevant field - Appropriate experience in research and high motivation - Excellent scientific and organizational skills, reliability – Self-initiative and capacity to work independently - Excellent interpersonal and scientific communication

skills, able to work in collaboration - Good English language skills for presentations and writing scientific papers

To apply: Applicants should send their CV, a motivation letter, relevant reprints, 3 references (name, e-mail, address, phone, and fax no.) and two reference letters, before April 6th, to Muriel Coulpier (muriel.coulpier@vet-alfort.fr), (Unité de Virologie, Ecole Nationale Vétérinaire d'Alfort, 7 Avenue du Général de Gaulle, 94700 Maisons-Alfort, Nathalie Aulner (nathalie.aulner@pasteur.fr) and Anne Danckaert (anne.danckaert@pasteur.fr), Unité de Technologie et de Service Photonic BioImaging, Institut Pasteur, 28 rue du Dr Roux 75015 Paris.