

LES CONFÉRENCES DE L'ICM



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V. Hugh PERRY - January 16, 2012 at 11:00

The impact of systemic inflammation on the healthy and diseased brain

We have all at one time or another felt ill or sick. Humoral and neural pathways mediate the communication between the peripheral immune system and the brain. These pathways signalling to the brain play an important role in the generation of metabolic and behavioural changes, so-called sickness behaviours, that help to protect us from the consequences of systemic infections. In healthy individuals the impact of systemic inflammation on the brain is part of our homeostasis and causes no damage to the brain. We have shown that in animals with chronic neurodegeneration systemic inflammation may lead to exaggerated symptoms of sickness and accelerate the progression of neurodegenerative disease. The resident macrophages of the brain, the microglia, appear to be 'primed' by the ongoing neurodegeneration and give an exaggerated response to systemic inflammation. We have shown that in patients with Alzheimer's disease systemic inflammation and infections are associated with a more rapid cognitive decline and exacerbation of behavioural symptoms of the disease. These studies highlight the importance of understanding the molecular and cellular communication pathways between the immune system and the brain in health and disease.

**Lundi 16 janvier 2012 à 11h00 / Auditorium de l'ICM
Hôpital Pitié-Salpêtrière, 47 boulevard de l'hôpital - 75013 Paris**