

# LES CONFÉRENCES DE L'ICM



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## Hosted by Yves AGID

If you would like to meet the speaker, please use  
the following contact: *yves.agid@icm-institute.org*

*Emmanuel MIGNOT – September 12, 2011 at 11:00*

## Narcolepsy, autoimmunity and the brain

There is a renewed interest in neuroimmune etiologies for neuropsychiatric disorders. Few autoimmune disorders, beside ataxias and paraneoplastic syndromes, selectively affect neurons. It has been challenging to identify antibodies or T-cell reactivity directed against neuronal targets. Narcolepsy, a disorder caused by the loss of 70,000 hypothalamic neurons producing hypocretin, is a unique model to address neuronal autoimmunity in an homogeneous set of patients. The disorder is associated with DQA1\*01:02/DQB1\*06:02, P2YR11 and T Cell Receptor (TCR) Alpha J segment polymorphisms. The TCR polymorphism is likely to affect CDR3 binding in the HLA-peptide presentation complex, suggesting the involvement of the adaptive immune system. Studies of disease onset seasonality also indicate a 6-fold increase in onset in spring versus winter. Further, patients close to onset have increased antistreptolysin-O (ASO) antibodies and a link with H1N1 vaccinations and infections suggesting a role for winter infections. Next Gen sequencing and tetramer studies are now aiming at identifying the specific infectious epitopes and TCR molecules involved.

**Lundi 12 Septembre 2011 à 11H00**  
**Auditorium de l'ICM**  
**Hôpital Pitié-Salpêtrière**  
**47, boulevard de l'hôpital - 75013 Paris**