

Sleep-wake disorders, a major problem of public health

☛ **37%** of the general population suffers from sleep-wake disorders

☛ **19%** consults their physicians

Survey from SOFRES, France



*Fall asleep at a
time like this ?*



☛ **What are the origins and health consequences of these disorders?**

☛ **What are the possible therapeutic approaches ?**



K. Sakai



J.S. Lin



S. Crochet



S. Marinesco

Cellular mechanisms

Integrative physiology

Preclinical studies



Molecular Genetic mechanisms



L. Seugnet

P. Franco  F. Gormand 

Clinical trials

H. Onen 

Tools for Neurotransmission dynamic



S. Marinesco



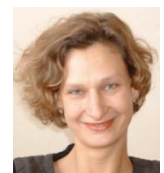
R. Cespuglio

Biomarkers



L. Seugnet

Consequences of extended wake



K Spiegel



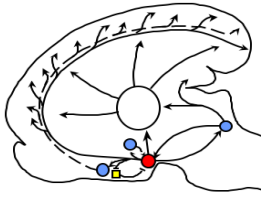
P. Franco



L. Seugnet

Integrative Physiology of Brain Arousal Systems

Axes of the project



What are the major arousal systems?

- axis 1: Histamine, orexin & mechanisms maintaining wakefulness

JS Lin, K Sakai

How arousal is maintained in cortical target?

- axis 2: Wakefulness & alertness at the cortical level

S Crochet, S Marinesco

What are the molecular pathways involved in normal wake and insomnia?

- axis 3: Molecular pathways of wakefulness

L Seugnet

Does sleep/wake interact with body functions?

- axis 4: Extended wake & metabolic disorders

K Spiegel

New targets & approaches treating wake disorders?

- axis 5: Preclinical & clinical studies

P Franco, JS Lin

