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

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

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

Integrative Physiology of Brain Arousal Systems
Team profile

K. Sakai

J.S. Lin

S. Crochet

S. Marinesco

Cellular mechanisms

Integrative physiology

Preclinical studies

F. Gormand

P. Franco

Molecular Genetic mechanisms

WAKE

Clinical trials

L. Seugnet

H. Onen

Tools for Neurotransmission dynamic

Biomarkers

Consequences of extended wake

S. Marinesco

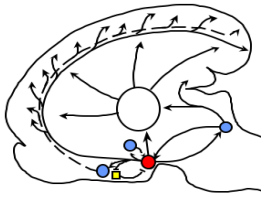
R. Cespuglio

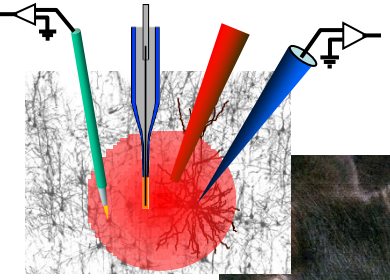
L. Seugnet

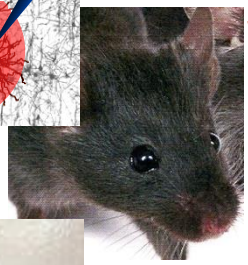
K Spiegel

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