Somno ART

POWERED BY PPRS
THE STRATEGIC PARTNERING ORGANIZATION

An innovative wearable medical device for objective sleep measurements

To date, no clinically validated option was available between the gold-standard polysomnography (hospital setting, time/cost consuming, stressful) and actimetry (limited accuracy).
PPRS, a French medical device manufacturer, has developed a new validated alternative: Somno-Art. This CE marked medical device is composed of an electronic armband that captures physiological data and a stand-alone software to generate medical grade hypnograms and sleep reports.

DEVICE

Somno-Art Device records cardiac activity and movements.

Photoplethysmography
Pulse-pulse interval

Memory
96 nights

Actimetry
3 spatial axes at 250Hz

Battery
40 hours

SOFTWARE

Somno-Art Software analyses these physiological signals in order to assess adult subject's sleep architecture.

WORKFLOW

A modern IT architecture has been developed in order to automate the sleep data analysis process, to ensure secure data transfer throughout the whole process, to be compliant with all the regulations* and to offer an easy-to-use experience for researchers and clinicians.

1. Recording
The data is recorded by Somno-Art Device and transferred to the computer

2. Data transmission
The recordings are securely sent to the Somno-Art data center

3. Scoring
Once validated, the recordings are scored by Somno-Art Software

4. Report creation
For each recording a sleep report is created, following the AASM recommendations

5. Results transmission
All the reports and data are securely sent to the customer

* HIPAA and GDPR compliant

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R&D innovate
TOPTEX3
PRESTOCAB CABLÂGE DE CARTES ÉLECTRONIQUES

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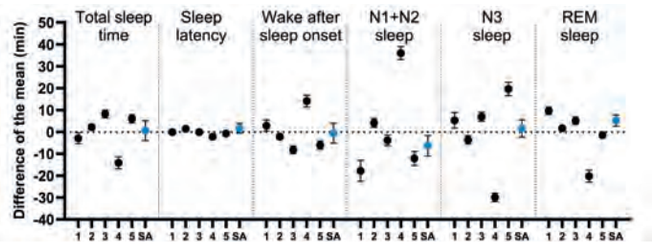
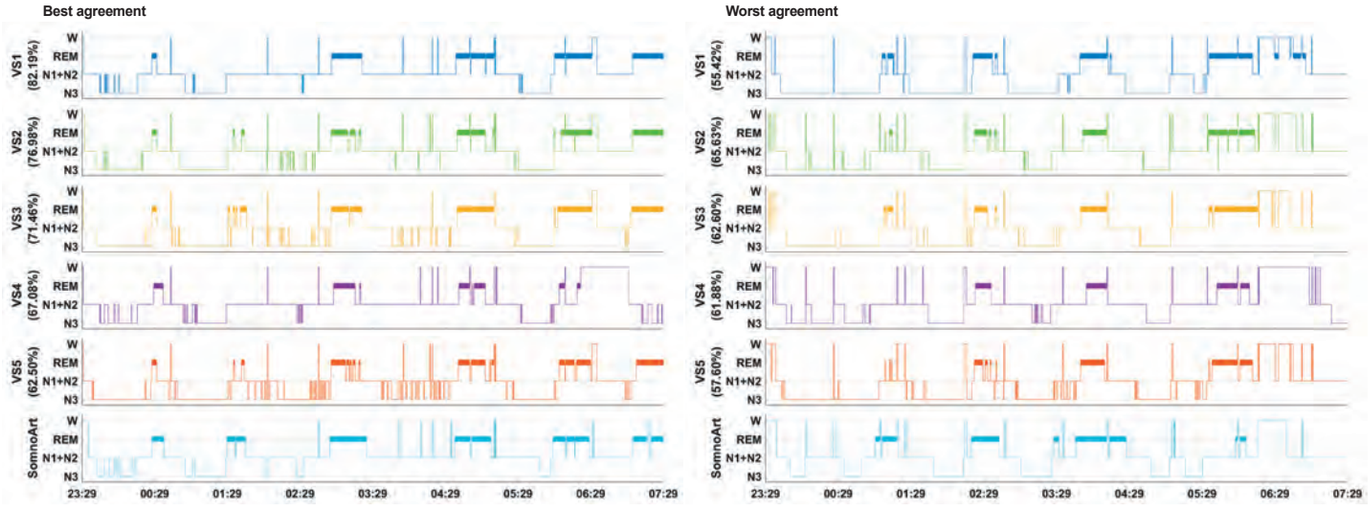
SLEEP STAGE SCORING

Somno-Art sleep scoring is in the range of the 5 PSG scorers. Somno-Art Software demonstrates reliable scoring over various international scoring centers (VS1-VS5).

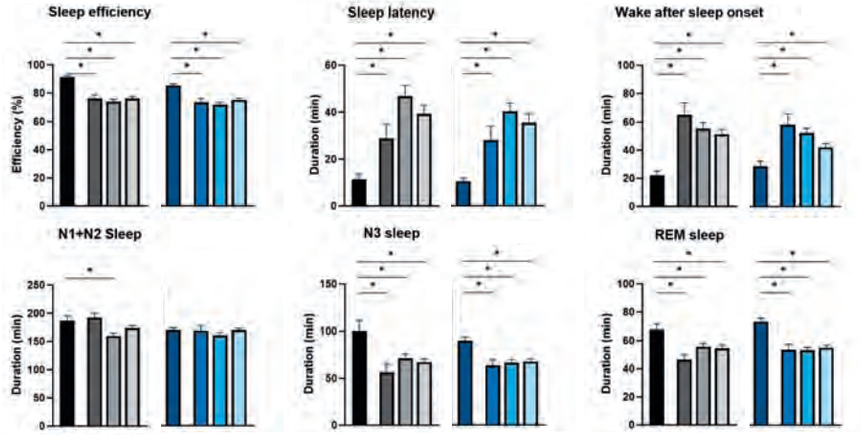


Mean ± SEM of 60 recording nights (healthy, OSA, insomnia and depressed patients).



AID-TO-DIAGNOSIS TOOL

The use of PSG or Somno-Art Software leads the clinician to the same diagnostic conclusions about a patient's sleep.



PEER-REVIEWED PUBLICATIONS

Muzet A, Werner S, Fuchs G, Roth T, Saoud JB, Viola AU, Schaffhauser JY, Luthringer R. **Assessing sleep architecture and continuity measures through the analysis of heart rate and wrist movement recordings in healthy subjects: comparison with results based on polysomnography**. *Sleep Medicine*. 2016;21:47-56.

Thiesse L, Staner L, Bourgin P, Roth T, Fuchs G, Kirscher D, Schaffhauser JY, Saoud JB, Viola AU. **Validation of Somno-Art Software, a novel approach of sleep staging, compared with polysomnography in disturbed sleep profiles**. *SLEEP Advances*. 2021;3(1).

Thiesse L, Staner L, Fuchs G, Kirscher D, Dehouck V, Roth T, Schaffhauser JY, Saoud JB, Viola AU. **Performance of Somno-Art Software compared to polysomnography interscorer variability: A multi-center study**. *Sleep Medicine*. 2022;96:14-9.

Thiesse L, Staner L, Bourgin P, Comtet H, Fuchs G, Kirscher D, Roth T, Schaffhauser JY, Saoud JB, Viola AU. (2023). **Somno-Art Software identifies pathology-induced changes in sleep parameters similarly to polysomnography**. *PLoS One*, 18(10), e0291593.

Presented in international conferences (SFRMS, ESRS, Word Sleep, APSS, ISDA, SFC, EBRS, SRBR...)

For more information, please email **contact@somno-art.com** | **www.somno-art.com**