

SIMS: AI-driven pain diagnostic for measuring pain in babies

A user-friendly clinical software package that combines recorded EEG and ECG signals to quantify infants' sensitivity to pain.

Applications: Routine clinical monitoring of pain in maternity, neonatal, paediatric settings; clinical trials, drug development



Features	Benefits
SIMS dataset is predicated on nine years of physiological data, collected in-house from >600 children	Such a dataset is rare and valuable; The data has enabled SIMS to develop their product
The API quantifies the magnitude of response to pain-related brain activity and heart rate changes, giving a 0-10 score; The score is presented on the Graphical User Interface (GUI)	An objective, easily interpretable measure of pain is calculated; API can be compared against expected levels of pain for a given procedure; EEG/ECG data is also available to clinicians
The API adapts the measure to account for inter-patient variability observed between recordings, as well as potential biases caused by the infant's age	Accurate measures of pain can be calculated for each individual infant; The API is robust and comparable across multiple studies and clinical settings
The SIMS software provides percentage assessments of signal and response quality	The GUI includes help prompts and informative error messaging for the end-user

Available for

- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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