**Abstract du projet**

*Combining signal processing and biomedical, the project focuses on the breathing sound analysis of premature newborns with respiratory deficiency. In connection with a medical team, the work consisted first in signal preprocessing to remove the noises (crying, heartbeat, machine noises, ...) by relying on labeled signals. Then, the extraction of signal characteristics was necessary to learn more about Surfactant Replacement Therapy.*

*Tools: Matlab, Audacity*

*Key words: Biomedical Engineering, Signal Processing, Breathing Sounds*