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Offre de stage

Informations sur le poste

Titre du stage : Artificial Intelligence using machine learning techniques for enhanced signal detection in clinical trials

Département : Global Biometrics	**Période du début de stage : Start from April 2024 (6 months)**

Missions

Project overview

When conducting a clinical trial, the monitoring and detection of adverse events allows, among other methods, to assess the risks associated with the use of drugs, with the aim of ensuring a positive benefit/risk ratio for the pharmaceutical products. Various methods have been implemented to detect adverse drug reaction signals. However, the applicability of machine learning methods has not yet been fully evaluated.

Within the Global Biometrics Team, you will be supervised by senior biostatisticians to carry out the literature review of different Machine Learning methods allowing the detection and evaluation of potential drug safety signals. The performance and application of these methods will be evaluated on real databases from clinical trials (placebo-controlled studies, non-comparative dose escalation studies).

Missions

- **Literature review of the different existing Machine Learning methods for signal detection adapted to clinical study database.**
- **Application and comparison of the identified methods on real data**
- **Creation of functions/programs for each selected method (R or Python)**
- **Internship co-mentor by statisticians in France and statisticians in US**

Qualifications et expériences requises

Formation	. Statistics / Data science school (ENSAI, ISUP, or similar) . Master 2 biostatistics, data science or similar
Compétences	. Advanced skills in statistics, data science . Advanced skills in R and/or Python . Eager to learn more about data science and its application in Life sciences . Good written and oral communication skills, organized and know how to manage priorities