

# Statistical modeling and machine learning for prediction of the response to immunotherapy in lung cancer

## Ingénieur en Techniques Biologiques

**Emploi-type** Ingénieur(e) scientifique

**BAP** E

**Missions** The engineer or postdoc position will take place in the environment of a newly created Inria-Inserm team COMPO (COMputational Pharmacology in Oncology), located in the University Hospital of Marseille. This team is composed of mathematicians, pharmacists and clinicians and is a unique multidisciplinary environment focused on developing novel computational tools for decision-making in clinical oncology. Specifically, the project is funded by the french National Cancer Institute (INCa) and will consist in developing mechanistic models of the response to immune-checkpoint inhibitors (ICI) with access to unique, large-scale (~450 patients), longitudinal and multi-modal biological data generated by thePIONeeR consortium clinical study (RHU program). It will involve strong interactions with clinicians from APHM and biologists, from academy (CIML and CRCM in Marseille) as well as biotech (e.g. HaliDX) and pharma companies (InnatePharma, Imcheck therapeutics).

**Activités principales**

- Data exploration and visualization
- Biostatistics (e.g. statistical tests, survival analysis)
- Machine learning (unsupervised and supervised)
- Develop web applications

**Activités associées**

- Analyze the requirements of the project partners

**Connaissances**

- Familiarity with real-world data analysis
- Strong background in statistics
- Ideally, experience in mixed-effects modeling

**Savoir-faire**

- Excellent programming skills (python/R)

**Aptitudes**

- Autonome
- Réactif
- Rigueur, fiabilité
- Sens du relationnel

**Spécificité(s) / Contrainte(s) du poste** aucune

**Expérience souhaitée**

- Analyse de données

**Diplôme(s) souhaité(s)**

- MASTER en data science/statistiques/mathématiques appliquées

## Structure d'accueil

**Code unité** UMR1068

**Intitulé** Centre de Recherche en Cancérologie de Marseille

**Responsable** Jean-Paul BORG

### Composition

**Adresse** 27 boulevard Leï Roure – 13009 Marseille

**Délégation  
Régionale** DR2 PACAC

## Contact

**Nom et prénom** BENZEKRY Sébastien

**Tél.** 06 95 72 57 07

**Email** Sebastien.benzekry@inria.fr