



## ANNEXE 1

# Entreprises, pour proposer un sujet de thèse soutenue par le dispositif CIFRE, merci de remplir les champs suivants, et d'envoyer le document à : [cifre@anrt.asso.fr](mailto:cifre@anrt.asso.fr)

*Si vous souhaitez ajouter un descriptif plus détaillé de l'offre à votre annonce, merci de le joindre accompagné de ce formulaire.*

- **Nom de l'entreprise\*** : Sanofi Aventis Recherche & Développement
- **Ville et code postal\*** : 13 quai Jules Guesde BP14 94403 Vitry-sur-seine Cedex France
- **Nom du laboratoire académique partenaire (si déjà connu)** : INSERM UMR1232 & CNRS ERL6001 CRCINA IRS-UN (Nantes)
- **Numéro de reconnaissance du laboratoire** : .....
- **Thématique de recherche en une phrase (sans aucun caractère confidentiel) \*** : Targeting T lymphocytes for cancer immunotherapy
- **Descriptif de la thématique de recherche (sans aucun caractère confidentiel) \*** :

Our group "Immunobiology of Human alpha beta and gamma delta T cells & Immunotherapeutic Applications" located at CRCINA IRS-UN (INSERM UMR1232 & CNRS ERL6001, University of Nantes) is looking for a motivated PhD candidate to work on a collaborative project with its industrial partner SANOFI for a CIFRE PhD thesis.

• **Descriptif du poste\*** : As part of a collaboration between SANOFI R&D centre localised near Paris and the CRCINA laboratory in Nantes, the PhD candidate will work on an innovative project aiming to decipher the peculiar mode of antigenic activation of human  $\gamma\delta$  T lymphocytes, and more precisely the identification of particular mechanisms involving the  $\gamma\delta$  TCR/CD3 complex, as well as the functional consequences of following its specific engagement.

This collaborative experimental program of the PhD project will be developed by the student in both laboratories and should be mainly structured along the two following axes:

- I- The molecular characterization of anti-CD3-mAb-induced activation of  $\gamma\delta$  T lymphocytes. This work should rely on the use of complementary *in silico*, molecular biology, biochemistry and high-resolutive/video-microscopy approaches. The analysis of signaling events induced by CD3 engagement will also be investigated with a particular focus on the impact on the induced functions. Various complementary technical approaches including immunological functional assays, flow cytometry, biochemistry and videomicroscopy should be used
- II- The development of humanized murine models that allow the development of different human  $\gamma\delta$  T lymphocyte subsets to finally assess the functional activities of CD3-mAbs *in vivo*/Preclinical studies.

Altogether, the results are expected to provide key insights on basic and applied immunology sides (eg. molecular structures and conformational dynamics of the  $\gamma\delta$  TCR/CD3 complex, signaling, functions, specificity) to help design novel  $\gamma\delta$  T cell-based approaches for the development of innovative cancer immunotherapies.

### CANDIDATE PROFILE

We are looking for a motivated candidate for this PhD CIFRE thesis. He, or she, should have good knowledge in biology, biochemistry and immunology, with basic expertise in biological/biochemical techniques. Animal experimentation accreditation (Levels 1 or 2) will be a plus. The candidate should also have excellent communication, organisational and team player skills. The candidate should hold a Master 2 degree in biology/biochemistry/immunology

- **Date de recrutement\*** : Poste à pouvoir pour octobre.

- **Adresse e-mail à laquelle le candidat doit envoyer sa candidature\*** :

[Dorothee.Bourges@sanofi.com](mailto:Dorothee.Bourges@sanofi.com)

\*champs obligatoires