

Post-doctoral position in anti-cancer Nanotherapies

Job Profile

CSS

Offer description

The team MicroPanc is looking to recruit a young post-doctoral researcher. The candidate will develop a research theme on “nanotherapies for cancers”.

The project will involve developing a strategy for therapeutic targeting of the tumor microenvironment using magnetic nanoparticles, then demonstrating that it is possible to disrupt the tumor microenvironment *in vitro* and then *in vivo* using magnetic fields. Magnetic nanoparticles will be synthesized and encapsulated in new drug delivery systems by chemist collaborators. *In vitro* and *ex vivo* studies will be carried out to analyze their targeting efficacy and specificity, as well as their ability to destroy the tumor microenvironment and deliver chemotherapy after magnetic field application. Finally, *in vivo* studies (notably on a mouse model of pancreatic adenocarcinoma, a cancer known to present an abundant, dense and compact microenvironment) will be used to determine whether such approaches can improve subsequent chemotherapeutic treatments and reduce tumor cell resistance to these treatments.

Researcher profiles

- First-Stage Researcher (*PhD candidate*)
- Young Researcher (*with less than 4 years research experience after PhD*)
- Established Researcher (*with more than 4 years research experience*)
- Senior Researcher

Research Fields (2 max.)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Biological Sciences | <input type="checkbox"/> Medical Sciences |
| <input type="checkbox"/> Chemistry | <input type="checkbox"/> Neurosciences |
| <input type="checkbox"/> Computer Science | <input type="checkbox"/> Pharmacological Sciences |
| <input type="checkbox"/> Engineering | <input type="checkbox"/> Physics |
| <input type="checkbox"/> Environmental Science | <input type="checkbox"/> Technology |
| <input type="checkbox"/> Ethics in Health Sciences | <input checked="" type="checkbox"/> Other (specify): Nanotechnology |

Main Activities

- Cell culture, cytotoxicity assay
- Confocal microscopy, Flow cytometry
- Animal experiments
- Histology
- Immunohistochemistry

Associated Activities

- SGH microscopy, atomic force microscopy
- Student supervision

Specific Requirements or Constraints

- Animal experiment certification
- Interaction with project partner teams

Skills/Qualifications

- Principles of rigor and integrity in the implementation of scientific experimentation
- Teamwork: listening skills, good communication skills and ability to adapt in a team environment

Required Experience 0 to 2 years 2 to 4 years 4 to 10 years >10 years
Fields: life sciences, cell biology, cancer

Required Education Level or Diploma

- PhD in life sciences, cell biology, pathophysiology

Required Languages

- English (possibly French)

Hosting Unit

Code INSERM U1037 - CRCT

Name TOULOUSE CANCER RESEARCH CENTER

Director Dr Pierre Cordelier

Team Micropanc (Team 6) headed by Dr Corinne Bousquet
Project in the nano-Group headed by Dr Véronique Gigoux

Address 2 Avenue Hubert Curien | 31037 Toulouse

Website <https://www.crct-inserm.fr/en/>

Contract

Type CDD

Duration 30 months

Salary From 2909,90 € by month

Envisaged Start Date April 2025

Application

Applicants must send a CV and a cover letter to : veronique.gigoux@inserm.fr

Contact for further information (name, telephone/mail): Dr Véronique Gigoux - veronique.gigoux@inserm.fr

Deadline for application: 14 February 2025