

Post-doc Fellowship in Molecular Biology

Principal Investigator: Ana Marisa Chudzinski-Tavassi

Institution: Centre of Excellence in New Target Discovery (CENTD) / Instituto Butantan – São Paulo, SP, Brazil

Project Title: Implementation of a molecular biology platform for functional genomics by CRISPR/cas9 system

The Centre of Excellence in New Target Discovery (CENTD), a partnership between FAPESP, Glaxo-SmithKline (GSK) and the Butantan Institute, is offering a FAPESP Post-Doctoral scholarship, available for immediate start. The CENTD Laboratory is located at the Butantan Institute, São Paulo, Brazil.

The fellow will have the opportunity to work on the identification and characterization of new molecular targets identified in cellular models using multiple approaches. In this process, cells are subjected to various stimuli and then treated with potentially anti-inflammatory synthetic peptides. Targets are identified by chemoproteomic strategies.

The fellow will focus primarily on validating the identified targets with the use of genomic editing techniques such as CRISPR/Cas9 (gene knockout), RNAi gene silencing (knockdown) and/or overexpression of genes of interest.

Candidates must have a PhD in Biochemistry, Molecular Biology or related areas, good scientific output with publications as first author in the area of expertise that are compatible with the position, motivation to solve complex biological problems in the field of molecular target discovery, and the ability to work in an interdisciplinary environment. Excellent organizational skills with experience in planning and developing experiments, a proactive mindset, independence and group work are essential. In addition, the candidate must have good communication skills in English, for drafting scientific manuscripts and orally presenting/discussing results at regular meetings with the participation of GSK.

Proven experience in molecular cloning and generation of genetically modified human cells, construction of viral vectors and/or plasmids, bacterial culture, production of lentiviral particles, nucleic acid extraction, RT-qPCR, Western blotting, practice in Sanger-type sequencing data analysis, guide RNAs (sgRNA) designs

and extensive knowledge in phenotypic assays with human cell culture. The candidate must have conceptual/practical experience in methods for evaluating the efficiency of gene editing.

As the project involves the study of peptides with potential anti-inflammatory action in diverse cell models, it is desirable that the candidates have solid knowledge in immunology.

Candidates who master the main gene editing tools using CRISPR/Cas9, RNAi and gene overexpression systems will preferably be selected.

Candidates must be available to collaborate on other projects within CENTD, if requested.

Interested candidates must submit their applications including: cover letter, curriculum vitae and two letters of recommendation. The fellow will be supervised by Dr. Ana Marisa Chudzinski-Tavassi, project coordinator.

Applications must be sent to the following e-mail addresses:

centd.vagas@butantan.gov.br and **ana.chudzinski@butantan.gov.br**

The position is open to Brazilian and foreign applicants. The selected candidate will receive a Post-Doctoral Scholarship from FAPESP in monthly amount of BRL 8,479.20, and a Technical Reserve, equivalent to 10% of the annual value of the scholarship, to cover unforeseen expenses directly related to the research activity.

If the selected candidate needs to move into the city where the headquarters of the research institution is located, it is possible to apply for financial assistance, (visit <https://fapesp.br/7771> for conditions).

- Transport costs, if there is a distance greater than 350km (visit www.fapesp.br/en/5427).

Registration start date: August 25, 2022

Deadline for applications: September 25, 2022

Term: 48 months

Grant: 2020/13139-0, FAPESP.