



UFRJ

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO

Announcement of a postdoctoral scholarship

Scholarship value R\$5,200.00 (five thousand and two hundred reais) per month.

Duration of 1 year, extendable for 1 additional year.

Application from October 18th to December 6th, 2023.

In the present project, the selected researcher will work with models of gene regulation networks using the theoretical strategies developed by Waddington [1] and Kauffman [2]. The main objective is to study the molecular mechanisms involved in the transition between the Luminal, HER2+ and Triple Negative subtypes in breast cancer.

The National Cancer Institute (INCA) estimates that for each year of the 2020/2022 triennium, 66,280 new cases of breast cancer will be diagnosed in Brazil. According to Dr Ben Anderson, Medical Officer, Cancer Control, World Health Organization:

"Breast cancer is the most common cancer worldwide and the most likely reason for a woman to die from cancer."

This project will make use of experimental data produced at the National Cancer Institute; coming from both patients and cell culture samples. This is a project that seeks to apply advanced concepts of Computational Biology for the well-being of the population and to combat a disease with enormous human and social consequences.

The Postgraduate Program in NanoBioSistemas is a partnership between the Federal University of Rio de Janeiro (UFRJ, Faculty of Pharmacy and Campus Duque de Caxias), The National Laboratory of Scientific

Computing (LNCC), Fiocruz (Bio-Manguinhos and Instituto Oswaldo Cruz) and the National Institute of Metrology, Quality and Technology (Inmetro).

The UFRJ Duque de Caxias Campus [3] is strategically located at similar distances from the city of Rio de Janeiro [4] and the city of Petropolis [5], one of the best cities for living in Rio de Janeiro state, the safest city in the state, and one of the 30 safest in Brazil [6]. The researcher will have the option of living in either of these two cities.

The approved candidate will receive a Letter of Benefits in order to apply for the required temporary VISA.

Prof. Dr. Francisco Lopes [7,8] will be responsible for supervising the project.

For more information, access the notice and work plans at:

https://caxias.ufrj.br/images/Notice_Postdoc.pdf

https://caxias.ufrj.br/images/Work_plan_1.pdf

https://caxias.ufrj.br/images/Work_plan_2.pdf

If you would like more information, do not hesitate to contact us: fpereiralopes@mednet.ucla.edu

We are awaiting your application to participate in this extremely exciting project.

Prof. Francisco Lopes

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[1] Bistability, Bifurcations, and Waddington's Epigenetic Landscape. J. Ferrell. Published in Current Biology 5 June 2012. Biology.

[2] Huang S, Ernberg I, Kauffman S. Cancer attractors: a systems view of tumors from a gene network dynamics and developmental perspective. Semin Cell Dev Biol. 2009 Sep;20(7):869-76.

[3] <https://maps.app.goo.gl/JtUX3rv62GaCyUKu8>

[4] <https://maps.app.goo.gl/x5W8LrJsswQSmrkdA>

[6] <https://www-diariodepetropolis-com-br.translate.goog/integra/petropolis-e-a-cidade-mais-segura-do-estado-diz-ipea-151533? x tr sl=pt& x tr tl=en& x tr hl=pt-BR& x tr pto=wapp>

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