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## PhD Position „Immunomodulatory Mechanisms in Muscle and Heart: Unravelling the Interplay in Chronic Chagas Cardiomyopathy "

Dear Maria,

I am happy to write you and I trust you are doing well back Rio. We are also back and Rosa is now working as scientist in my group at the Bernhard Nocht Institute for Tropical Medicine in Hamburg, Germany[1]. I am also faculty of the Hamburg School of Infection and Immunity (HSII)[2] and I am very happy to inform you about an exciting PhD opportunity within my lab.

I trust your excellent record of many years in research in Chagas disease, and I would like to establish a collaboration with you and your institution. Rosa and I are convinced that you train excellent people and she would love it if you could assist us in finding a talented Brazilian student for this project. Maybe you can circulate this call also through the Sociedade Brasileira de Imunologia.

Our focus is on understanding host-parasite interactions, specifically targeting protozoan infections like *Trypanosoma cruzi*, known to cause Chagas disease. Through mouse models and human in vitro systems, we've made significant progress in unravelling immune responses to *T. cruzi* infection across acute and chronic phases. Our research delves into how *T. cruzi* interacts with immune cells, especially NK and T cells, and its implications on infection outcomes. We're now exploring the role of muscle cells in chronic *T. cruzi* infection, particularly in Chagas Cardiomyopathy development. In the forthcoming PhD project, we will be focusing on chronic *T. cruzi* infection's impact on muscle tissue metabolites in modulate inflammatory responses.

We are currently seeking a talented PhD student to join our team and contribute to this exciting project. The ideal candidate should possess:

- An above-average MSc degree in biological sciences or equivalent, with preferably prior experience in *T. cruzi* projects.
- Experience in immunology, including experience in flow cytometry.
- Experience in statistical data analysis.

[1] https://www.bnitm.de/forschung/forschungsgruppen/interface/ag-protozoen-immunologie/research-projects

[2] https://www.uke.de/forschung/academy-of-biomedical-health-sciences/schools/hamburg-school-of-infection-immunity/index.html

- Fluency in at least one data science language (R, Python) is highly desirable. Alternatively, a strong willingness to learn these skills will be considered.
- Outstanding teamwork skills and a willingness to engage in interdisciplinary research.
- Ability to work independently and tackle new challenges with a quality-oriented approach.
- Good communication skills in English.

The selected candidate will perform cutting-edge research at the intersection of infection, immunity, and inflammation, delve into parasite-host interactions, and implement systems immunology analysis tools to advance our understanding of Chagas disease pathogenesis.

If you're passionate about infectious diseases and eager to contribute to ground-breaking research, we encourage you to apply. The deadline for applications is **May 24, 2024**, and the program is scheduled to commence in **October 2024**. For further details and application instructions, please visit the attached flyer. For Questions don't hesitate and contact me at tjacobs@bnitm.de

We look forward to welcoming a motivated and dedicated student to our team!
Thanks for your help!

Sincerely,

Thomas Jacobs,
Principal Investigator, Head of Protozoa Immunology