

Research into Parasitic Diseases and Development of Prevention Programs Critical to Health and Wellbeing in the Northeast Region of Brazil



Joshua Cigoianu, 2026, Princeton University
Fiocruz Pernambuco: Instituto Aggeu Magalhaes

Introduction

- Instituto Aggeu Magalhaes, Fiocruz Pernambuco, is an independent scientific research laboratory and organization which aims to educate the population on how to take personal action for health and wellbeing and innovate policies and treatment for some of the most consequential viruses in that region.
- During my two month stay in the Dr. Luydson Vasconcelos' lab, I observed, learned, and participated towards the daily and long-term projects which members of the Parasitology, Microbiology, and Schistosomiasis laboratories were working on

Objective of Internship

My goals for this stay included developing my abilities and skills as a lab researcher through practical application of knowledge I garnered in the classroom at Princeton, familiarizing myself with how health is studied and treated in a foreign country, and challenging myself to adapt to a region and environment wholly new to me.

Work Profile

- Five weeks within the Department of Parasitology, applying genetic analysis techniques to schistosomiasis and liver cancer studies
- One week in the local liver hospital working with patients and preparing samples
- Two weeks with Microbiology working with *Yersinia pestis* and hepatitis



Figure 1. Schistosomiasis Lab birthday celebration with traditional Brazilian cakes and snacks.

Reflections

During this experience, I

- Learned how live test subjects and samples are kept and treated
- Wrote and reviewing scientific articles

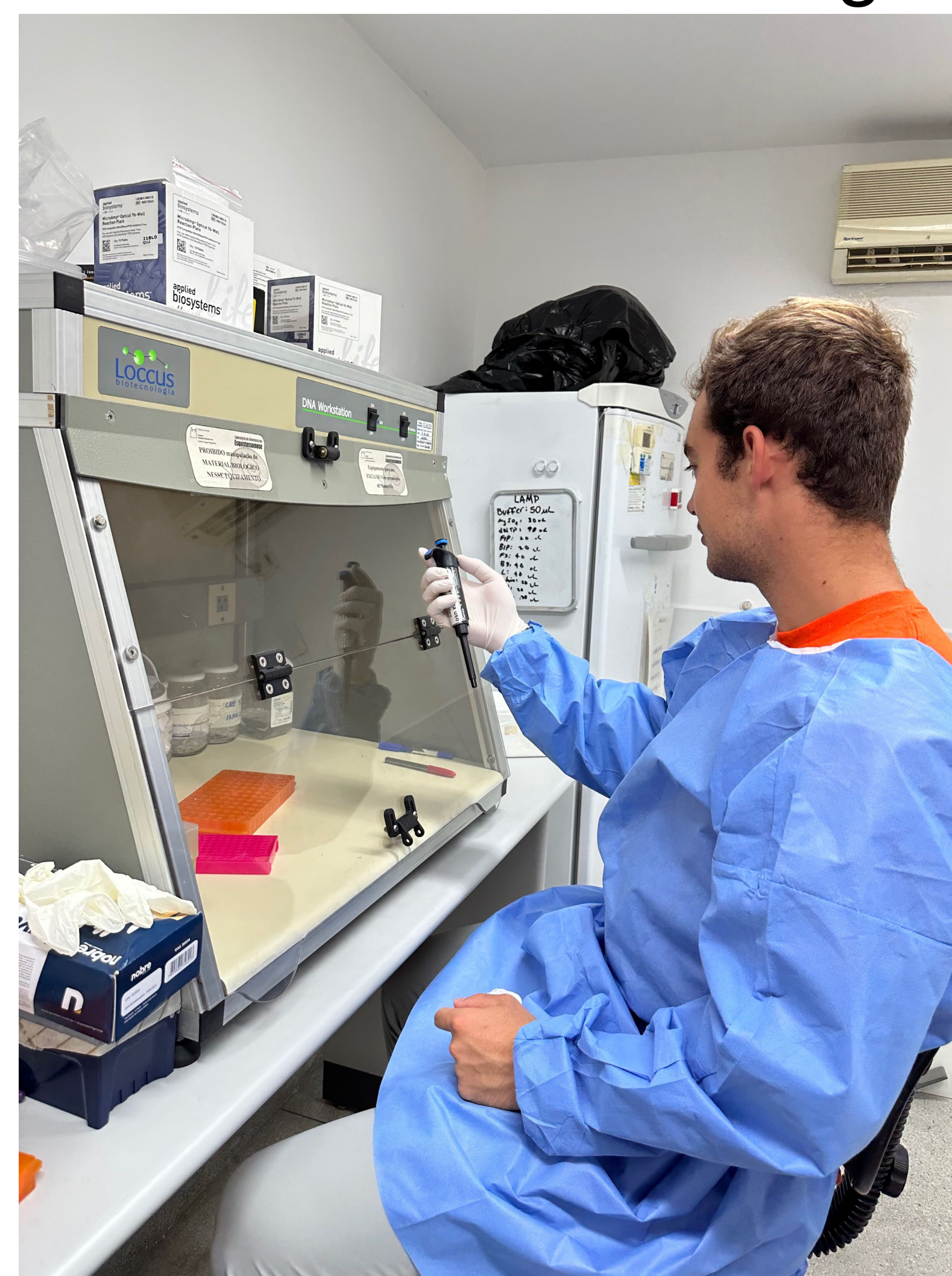


Figure 2. Preparing tubes containing live samples for PCR amplification.

Looking Ahead

My time with Fiocruz has confirmed for me that I have a passion for helping others. Not only that, the fields of healthcare and scientific research are constantly in need within society and are incredible fields to be a part of professionally.

Questions

An observation I made during my time in Brazil is that oftentimes, the amount of progress researchers can make, regardless of personal commitment to bettering the welfare of those suffering from infectious diseases, is limited by how much financial and bureaucratic support researchers receive from the government and other funding organizations. How can institutions like Fiocruz prevent these limitations?

Conclusions

Working in a laboratory requires patience and dedication. While the profession is incredibly challenging at times, it is also immensely rewarding. Healthcare research has a direct impact on the lives and well beings of people across the globe.

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