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Fungi from The Cold: Research in Antarctica

An Eppendorf Customer Story

Professor Luiz Henrique Rosa

works as a researcher at the Universidade Federal de Minas Gerais in the city of Belo Horizonte, Brazil.



His work not only includes managing the department of microbiology and the associated lab, but also supervising the next generation of researchers, from undergraduates to PhD students. He works in the field of mycology, more specifically the study of tropical fungi as well as endemic fungi and macroalgae only found in Antarctica. Besides learning more about fungal diversity in harsh environments, one of his goals is to find out more about the bioactive compounds and potential antimicrobial activities of Antarctic fungi which might be harnessed by Biopharma companies. Professor Rosa shares his personal journey into biology: "I have always been interested in the field of biology. I remember when I turned 18, my brother just started his undergraduate studies in biology. Talking to him made me realize that I also wanted to go into this field of research. I always felt I had a connection with this field, which led to my specialization in microbiology".

Professor Rosa's work also means training students of different backgrounds on the various techniques in the pursuit to identify fungi correctly and single out potential bioactive compounds. He has contributed to the field since 1996.

»Although I have been a Professor and Researcher since 2006, I have worked in microbiology ever since 1996, when I started my first internship. You could say I have been working in this field for 25 years now.«

Professor Luiz Henrique Rosa, Lead researcher MycoAntar project



In his lab research, the main application of pipettes and consumables is to identify the fungi correctly: Molecular biology techniques such as genomic DNA extraction from fungal cultures and PCR amplification and sequencing are essential tasks that require a lot of pipetting steps and a high degree of reliability when it comes to volumes that need to be handled. *"For me, the high reliability and durability of Eppendorf products is not only the reason why l initially started using them, but also why l still use them till this day"*, says Professor Rosa. *"Our lab also has a few other products, but most of the devices are Eppendorf. Everyone tries to get their hands on the Eppendorf pipette if they have the choice."*

For any lab, the versatility of the research tools such as e.g. pipettes are a key feature when working on different types of research. Professor Rosa sees the mechanical, but especially the electronic <u>Eppendorf pipettes</u>, as an essential part of providing this all-round solution to his applications.

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Professor Luiz Henrique Rosa, Lead researcher MycoAntar project "We use the <u>Eppendorf Xplorer</u>[®] pipette to quickly prepare bioprospecting assays. We can make a range of different assays in just a fraction of the time", added Professor Rosa. "Compared to other brands, the Xplorer electronic pipettes allow us to speed up our work, and time is often of the essence when working with fungi samples."

Professor Rosa is already thinking ahead to automate his workflow even more to save time: "I would love to see a pipetting robot in our university lab in the future. Our microbiology research on fungal cultures from Antarctica would greatly benefit from it by taking manual pipetting tasks off our hands."

Interested in more impressions from the project? Follow MycoAntar on Instagram: www.instagr.am/mycoantar

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