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EDUCATION

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| University of Chicago, Chicago, IL, USA Doctor of Philosophy Degree in Human Genetics | 2023-Current |
| Loyola University Chicago, Chicago, IL, USA Master of Science Degree in Bioinformatics | 2020-2023 |
| Federal University of Minas Gerais, Belo Horizonte, MG, Brazil Bachelor of Science Degree in Biological Sciences | 2016-2020 |

RESEARCH EXPERIENCE

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| Graduate Student, Loyola University Chicago (PI: Heather E. Wheeler, PhD) | 2020-2023 |
| <ul style="list-style-type: none">Developed multiple gene expression prediction models for transcriptome-wide association studies.Assessed and compared the performance of different gene expression prediction methods across distinct human populations.Mentored 2 undergraduate students in the laboratory. | |
| Undergraduate Student, Federal University of Minas Gerais (PI: Aristóteles Góes-Neto, PhD) | 2018-2020 |
| <ul style="list-style-type: none">Applied molecular biology techniques (DNA/RNA extraction and purification, and PCR and RT-PCR) for the study of fungi.Developed pipelines for assembly and annotation of fungi mitochondrial and nuclear genomes, as well as for phylogeny analysis using molecular data. | |

TEACHING EXPERIENCE

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| Teaching Assistant, Department of Bioinformatics, College of Arts & Sciences, Loyola University Chicago (Professor: Heather E. Wheeler, PhD) | 2023 |
| <ul style="list-style-type: none">TA for the discipline of Computational Biology (COMP 383/483). | |
| Teaching Assistant, Department of Biochemistry and Immunology, Institute of Biological Sciences, Federal University of Minas Gerais (Professor: Rafael P. Vieira, PhD) | 2019 |
| <ul style="list-style-type: none">TA for the disciplines of Biochemistry, Molecular Biology, Projects on Biochemistry, and Physiological Chemistry. | |

PUBLICATIONS

- Menezes TA, Aburjaile FF, Quintanilha-Peixoto G, Tomé LMR, Fonseca PLC, Mendes-Pereira T, **Araújo DS**, Melo TS, Kato RB, Delabie JHC, Ribeiro SP, Brenig B, Azevedo V, Drechsler-Santos ER, Andrade BS, Góes-Neto A. Unraveling the Secrets of a Double-Life Fungus by Genomics: *Ophiocordyceps australis* CCMB661 Displays Molecular Machinery for Both Parasitic and Endophytic Lifestyles. Journal of Fungi. 2023 Jan 13;9(1):110. doi: doi.org/10.3390/jof9010110
- Quintanilha-Peixoto G, Marone MP, Raya FT, José J, Oliveira A, Fonseca PLC, Tomé LMR, Bortolini DE, Kato RB, **Araújo DS**, De-Paula RB, Cuesta-Astroz Y, Duarte EAA, Badotti F, de Carvalho Azevedo VA, Brenig B, Soares ACF, Carazzolle MF, Pereira GAG, Aguiar ERGR, Góes-Neto A. Phylogenomics and gene selection in *Aspergillus welwitschiae*: Possible implications in the pathogenicity in *Agave sisalana*. Genomics. 2022 Oct 25;114(6):110517. doi: [10.1016/j.ygeno.2022.110517](https://doi.org/10.1016/j.ygeno.2022.110517)
- Araújo DS**, Wheeler HE. Genetic and environmental variation impact transferability of polygenic risk scores. Cell Rep Med. 2022 Jul 19;3(7):100687. doi: [10.1016/j.xcrm.2022.100687](https://doi.org/10.1016/j.xcrm.2022.100687)
- Fonseca PLC*, De-Paula RB*, **Araújo DS***, Tomé LMR, Mendes-Pereira T, Rodrigues WFC, Del-Bem LE, Aguiar ERGR, Góes-Neto A. Global Characterization of Fungal Mitogenomes: New Insights on Genomic Diversity and Dynamism of Coding Genes and

Accessory Elements. Front Microbiol. 2021 Dec 1;12:787283. doi: [10.3389/fmicb.2021.787283](https://doi.org/10.3389/fmicb.2021.787283) (* denotes shared first authorship).

- **Araújo DS**, De-Paula RB, Tomé LMR, Quintanilha-Peixoto G, Salvador-Montoya CA, Del-Bem LE, Badotti F, Azevedo VAC, Brenig B, Aguiar ERGR, Drechsler-Santos ER, Fonseca PLC, Góes-Neto A. Comparative mitogenomics of Agaricomycetes: Diversity, abundance, impact and coding potential of putative open-reading frames. Mitochondrion. 2021 May;58:1-13. doi: [10.1016/j.mito.2021.02.002](https://doi.org/10.1016/j.mito.2021.02.002)
- Fonseca PLC, Badotti F, De-Paula RB, **Araújo DS**, Bortolini DE, Del-Bem LE, Azevedo VA, Brenig B, Aguiar ERGR, Góes-Neto A. Exploring the Relationship Among Divergence Time and Coding and Non-coding Elements in the Shaping of Fungal Mitochondrial Genomes. Front Microbiol. 2020 Apr 29;11:765. doi: [10.3389/fmicb.2020.00765](https://doi.org/10.3389/fmicb.2020.00765)

PEER REVIEW ACTIVITY

- Frontiers in Fungal Biology (1).

CONFERENCE PRESENTATIONS

- **Araújo DS**, Nguyen C, Hu X, Rich SS, Rotter JI, Im HK, Manichaikul AW, Wheeler HE, on behalf of the NHLBI TOPMed Consortium. “*Multiadaptive shrinkage improves cross-population transcriptome prediction for transcriptome-wide association studies in underrepresented populations*” – American Society of Human Genetics 72nd Annual Meeting, 2022 (oral presentation).
- **Araújo DS**, Rich SS, Rotter JI, Im HK, Manichaikul A, Wheeler HE, on behalf of the NHLBI TOPMed Consortium. “*Improving cross-population transcriptome prediction models for transcriptome-wide association studies in underrepresented populations.*” - CHARGE (Cohorts for Heart and Aging Research in Genomic Epidemiology) Conference, 2022 (poster presentation)
- **Araújo DS**, Rich SS, Rotter JI, Im HK, Manichaikul AW, Wheeler HE, on behalf of the NHLBI TOPMed Consortium. “*Mitochondrial and sex chromosome genetically regulated gene expression implicates new genes in complex traits across multiple human populations.*” – American Society of Human Genetics 71st Annual Meeting, 2021 (poster presentation).
- **Araújo DS**, Fonseca PLC, Quintanilha-Peixoto G, De-Paula RB, Brenig B, Carvalho VA, Drechsler-Santos ER, Góes-Neto A. “*Characterization of the mitochondrial genome of Phellinotus piptadeniae (Basidiomycota, Hymenochaetales) and insights on the phylogeny of Agaricomycetes through comparative mitogenomics*” – X-Meeting 2019 15th International Conference of the AB3C, 2019 (poster presentation).

AWARDS

- Travel Award, Cohorts for Heart and Aging Research in Genomic Epidemiology Consortium (CHARGE) Philadelphia Meeting, 2022.
- Reviewers’ Choice Abstract Award, American Society of Human Genetics 71st Annual Meeting, 2021.

FELLOWSHIPS

- Research Assistant Fellowship, Loyola University Chicago. 2020-2023
- Undergraduate Research Project Fellowship, Brazilian National Council for Scientific and Technological Development (CNPq). 2018-2020

SKILLS

- Languages: English, French, Portuguese.
- Programming languages: Python, R, SQL, Unix.
- Molecular biology techniques: nucleic acids extraction and purification, quantitative and conventional PCR, agarose gel electrophoresis, maintenance of microbiology cultures.
- Bioinformatics analyses: genome assembly and annotation, alignment, phylogenomics, heritability assessment, machine learning algorithms, VCF processing, GWAS, TWAS, BioData Catalyst, Docker.