

CURRICULUM VITAE

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Employment

Technical Support Grantee, Biointervention and Pathology Lab (LPBI), Research Center Gonçalo Moniz (Fiocruz - Bahia, Brazil) 2015.

Education

PhD Agronomy and Horticulture (with James C. Schnable), University of Nebraska-Lincoln (Nebraska, USA) 2015-present.

MSc Genetics and Biodiversity (with Charbel El-Hani and Gilberto Bomfim), Federal University of Bahia (Bahia, Brazil) 2013-2014.

BSc Biological Sciences (with Teacher Certification), Catholic University of Salvador (Bahia, Brazil) 2008-2012.

Honors and Awards

Milton E. Mohr Fellowship, UNL Center for Biotechnology, 2016-2017.

- Prize awarded for outstanding students in biotechnology or engineering.

Science without Borders Scholarship (CNPq), administered by LASPAU, 2015-present.

- Scholarship that covers four years of PhD studies in the USA.

Research Support Foundation of Bahia, 2013-2014.

- Prize received during Masters degree (monthly stipend).

Peer Reviewed Publications

2. Benevides LJ, **Carvalho DS**, Andrade RFS, Bomfim GC, Fernandes FMC. (2016) Evolutionary Analysis of Apolipoprotein E by Maximum Likelihood and Complex Network Methods. GENETICS AND MOLECULAR BIOLOGY doi: [10.1590/1678-4685-GMB-2015-0164](https://doi.org/10.1590/1678-4685-GMB-2015-0164).
1. **Carvalho DS**, Andrade RFS, Pinho STR, Góes-Neto A, Lobão TCP, Bomfim GC, El-Hani CN. (2015) What are the evolutionary origins of mitochondria? A complex network approach. PLOS ONE doi: [10.1371/journal.pone.0134988](https://doi.org/10.1371/journal.pone.0134988).

Presentations

Poster Presentations

6. **Carvalho DS**, Zhang Y, Schnable JC. (2016) Comparative analysis of C4 photosynthesis genes in two independent origins of C4 in grasses. Spring Research Fair - University of Nebraska-Lincoln. Lincoln, Nebraska.
5. **Carvalho DS**, Zhang Y, Schnable JC. (2016) Comparative analysis of C4 photosynthesis genes in two independent origins of C4 in grasses. 58th Maize Genetics Conference. Jacksonville, Florida.
4. **Carvalho DS**, Zhang Y, Schnable JC. (2015) Comparative transcriptomic analysis of *Danthoniopsis dinteri*, a novel C4 grass species. Plant Phenomics Symposium. Lincoln, Nebraska.
3. **Carvalho DS**, Moraes LEP, Machado AO, Andrade RFS, Pinho STR, Lobão TCP, Bomfim GC, El-Hani CN. (2013) Complex networks as a bioinformatics approach for evolutionary analysis of two mitochondrial proteins. 59th Brazilian Congress of Genetics. Águas de Lindóia, Brazil.
2. **Carvalho DS**, Machado AO, Duarte AA, Andrade RFS, Pinho STR, Lobão TCP, Bomfim GC, El-Hani CN. (2012) Phylogenetic analysis of mitochondria: a complex network approach. 8th International Conference of the Brazilian Association for Bioinformatics and Computational Biology X-Meeting. Campinas, Brazil.
1. **Carvalho DS**, Machado AO, Duarte AA, Andrade RFS, Pinho STR, Lobão TCP, Bomfim GC, El-Hani CN. (2012) Complex networks in the phylogenetic analysis of mitochondria by the study of ATP synthase. XXX Physics Meeting in the North-Northeastern Brazil. Salvador, Brazil.

Invited Talks

Federal University of Bahia (Bahia, Brazil)

II Workshop of bioinformatics: Comparative Genomics. (2013)

- Mitochondrial Comparative Genomics

- Comparative Genomics Training (How to use BLAST and R for Comparative Genomics)

I Workshop of bioinformatics: Molecular Phylogeny. (2011)

- Networks and Algorithms

Teaching Experience

Federal University of Reconcavo of Bahia (Bahia, Brazil)

Lecturer. Complex networks - Biological applications (Short course). (2015)

Federal University of Bahia (Bahia, Brazil)

Guest lecturer. Taught one class for undergraduates. (2014)

Guest lecturer. Taught two classes for graduates (Master's students). (2014)

Guest lecturer. Taught one class for undergraduates. (2013)