# *Curriculum Vitae*

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Biography

I am a bioinformatics specialist born in Brazil where I started my studies on genetics and molecular biology. My scientific career started on the Heart Institute in Brazil where I started working on human genome data and especially with genomic annotation using public repositories. Using those tools, I developed my Ph.D. thesis in Brazil where I published my first 3 scientific manuscripts. I move to USA to complete my studies in 2011 and I was hired by the Texas Biomedical Research Institute, one of world leaders in methodological advances to study large human families with projects focused on diabetes and cardiovascular disease. Originally, my PhD training was focused on genomic annotation with the aid of public resources and the computational prediction of functional DNA elements by the application of a trained Hidden Markov Model (HHM) algorithm. During the past seven years, I was one of the main analysts working with the San Antonio Family Studies (SAFS) project whole genome sequencing data. I started to work at UTRGV in 2015 where we successfully continued our scientific investigations. In 2018, I was appointed as an assistant professor in the Department of Human Genetics at the UTRGV's school of medicine. During my scientific career, I have published a total of 49 scientific manuscripts.

Education: B.S. in Immunology – 2004
Pontificia Universidade Catolica de Campinas, Campinas, Brazil

Ph.D. in Bioinformatics – 2010
University of São Paulo, Cidade Universitaria
São Paulo, Brazil

Ph.D. Thesis title: Application of computational and statistical methods for the study of Cis gene regulation

Scientific Publications (In reverse chronological order)

1. **Almeida M. A.,** Diego V.P., Viel K.R., Luu B.W., Haack K., Raja R., Ameri A., Chitlur M., Rydz N., Lillicrap D., Watts R.G. Kessler C.M., Ramsey C., Dinh L.V., Kim B., Powell J.S., Manusov E.G., Peralta J.M., Bouls R., Abraham S.M., Shen Y., Murillo C.M., Mead H., Lehmann P.V., Fine22 E.J., Escobar M.A., Kumar S., Konkle B.A., Williams-Blangero S., Kasper C.K., Almasy L., Cole S.A., Blangero J. and Howard T.E. A scan of pleiotropic immune mediated disease genes identifies novel determinants of baseline FVIII inhibitor status in hemophilia A. *Genes & Immunity.* Published on-line- https://www.nature.com/articles/s41435-025-00325-7
2. Diego, V. P., B. W. Luu, **M. A. Almeida**, R. Rajalingam, M. Hofmann, J. A. Galan, E. G. Manusov, J. S. Powell, L. V. Dinh, H. Mead, H. Huynh, A. M. Verhagen, J. M. Peralta, P. V. Lehmann, S. Kumar, E. J. Fine, J. E. Curran, H. H. Goring, M. A. Escobar, S. Williams-Blangero, E. Maraskovsky, J. Blangero and T. E. Howard (2025). "Disentangling effects of the DR and DQ isomers encoded by the HLA class II haplotype DRB1*15:01/DQB1*06:02 to help establish the true risk allele for FVIII inhibitor development in Hemophilia A." *Frontiers in Genetics* Volume 16 – 2025 Apr 9;16:1506862. doi: 10.3389/fgene.2025.1506862.
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5. Diego VP, Manusov EG, **Almeida M**, Laston S, Ortiz D, Blangero J, Williams-Blangero S. Statistical Genetic Approaches to Investigate Genotype-by-Environment Interaction: Review and Novel Extension of Models. *Genes* (Basel). 2024 Apr 25;15(5):547. doi: 10.3390/genes15050547
6. 
7. Arya R., Lopez-Alvarenga J.C., **Almeida M.**, Kumar S., Peralta J., Diaz-Badillo A., Diego V.P., Resendez R.G., Fowler S.P., Jenkinson C.P., Lehman D., Curran J., Lynch J.L., Hale D.E., DeFronzo R.A., Mummidi S., Blangero J., Duggirala R. **Exome-chip-wide association study of biomarkers of liver function and metabolic dysfunction-associated fatty liver disease (MAFLD) in Mexican Americans***. Frontiers in Medicine*, 2023 (Accepted for publication).
8. Venkatesan V, Lopez-Alvarenga JC, Arya R, Ramu D, Koshy T, Ravichandran U, Ponnala AR, Sharma SK, Lodha S, Sharma KK, Shaik MV, Resendez RG, Venugopal P, R P, Saju N, Ezeilo JA, Bejar C, Wander GS, Ralhan S, Singh JR, Mehra NK, Vadlamudi RR, **Almeida M**, Mummidi S, Natesan C, Blangero J, Medicherla KM, Thanikachalam S, Panchatcharam TS, Kandregula DK, Gupta R, Sanghera DK, Duggirala R, Paul SFD. **Burden of Type 2 Diabetes and Associated Cardiometabolic Traits and Their Heritability Estimates in Endogamous Ethnic Groups of India: Findings From the INDIGENIUS Consortium**. *Frontier Endocrinology* (Lausanne) 2022 Apr 14;13:847692. doi: 10.3389/fendo.2022.847692
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