

Education

- 2010 - 2016 **Ph.D. in Molecular, Cellular, Developmental Biology and Genetics**
Stanford University, USA
- 2005 - 2009 **B.Sc. in Biology**
ESALQ - Universidade de São Paulo, Brazil
- Sep-Dec 2008 **Undergraduate Exchange Student**
Ohio State University, USA

Employment

- 2021 - present **Postdoctoral Researcher Fellow**
University of California - Berkeley, USA
- 2017 - 2019 **Postdoctoral Researcher Fellow**
Innovative Genomics Institute, University of California - Berkeley, USA

Journal Articles

11. GS Demirer, H Zhang, [JL Matos](#), NS Goh, FJ Cunningham, Y Sung, R Chang, AJ Aditham, L Chio, M Cho, BS Staskawicz, MP Landry. [High aspect ratio nanomaterials enable delivery of functional genetic material without DNA integration in mature plants.](#) **Nature Nanotechnology**, 14(5):456-464, 2019.
10. FJ Cunningham, NS Goh, GS Demirer GS, [JL Matos](#), MP Landry. [Nanoparticle-mediated delivery towards advancing plant genetic engineering.](#) **Trends in Biotechnology**, 36(9): 882-897, 2018.
9. E Abrash, MXA Gil, [JL Matos](#), DC Bergmann. [Conservation and divergence of YODA MAPKKK function in regulation of grass epidermal patterning.](#) **Development**, 145(14): dev165860, 2018.
8. AK Weimer, [JL Matos](#), N Sharma, F Patell, JAH Murray, W Dewitte, DC Bergmann. [Lineage-and stage-specific expressed CYCD7; 1 coordinates the single symmetric division that creates stomatal guard cells.](#) **Development**, 145(6): dev160671, 2018.
7. MT Raissig, [JL Matos](#), MXA Gil, A Kornfeld, A Bettadapur, EB Abrash, HR Allison, G Badgley, JP Vogel, JA Berry, DC Bergmann. [Mobile MUTE specifies subsidiary cells to build physiologically superior grass stomata.](#) **Science**, 355(6330):1215-1218, 2017.
6. J Adrian, J Chang, CE Ballenger, BOR Bargmann, JPL Alassimone, KA Davies, OS Lau, [JL Matos](#), C Hachez, A Lanctot, A Vatén, KD Birnbaum, DC Bergmann. [Transcriptome dynamics of the stomatal lineage: birth, amplification and termination of a self-renewing population.](#) **Developmental Cell**, 33(1):107-18, 2015.
5. [JL Matos](#), OS Lau, C Hachez, A Cruz-Ramírez, B Scheres, DC Bergmann, [Irreversible fate commitment in the Arabidopsis stomatal lineage requires a FAMA and RETINOBLASTOMA-RELATED module.](#) **eLife**, 3:e03271, 2014.
4. [JL Matos](#), DC Bergmann, [Convergence of stem cell behaviors and genetic regulation between animals and plants: insights from the Arabidopsis thaliana stomatal lineage.](#) **F1000 Prime Reports**, 6:53, 2014.
3. AH Medeiros, FP Franco, [JL Matos](#), PA Castro, LK Santos-Silva, F Henrique-Silva, GH Goldman, DS Moura, MC Silva-Filho, [Sugarwin: A sugarcane insect-induced gene with antipathogenic activity.](#) **Molecular Plant-Microbe Interactions**, 5:613-624, 2012.

2. FB Mingossi, [JL Matos](#), AP Rizzato, AH Medeiros, MC Falco, MC Silva-Filho, DS Moura, [SacRALF1, a peptide signal from the grass sugarcane \(Saccharum spp.\), is involved in tissue expansion.](#) **Plant Molecular Biology**, 73:271-281, 2010.
1. [JL Matos](#), CS Fiori, MC Silva-Filho, DS Moura. [A conserved dibasic site is essential for correct processing of the peptide hormone AtRALF1 in Arabidopsis thaliana.](#) **FEBS Letters**, 582:3343-3347, 2008.

Research Experience

- 2017 - 2019 *Innovative Genomics Institute (IGI), University of California - Berkeley, USA.*
- Genome editing approaches to establish resistance to necrotrophic fungal pathogens in wheat.
 - Robust CRISPR-Cas9 Ribonucleoprotein (RNP) delivery for transgene-free knockout and allele replacement in wheat.
 - Targeting cis-regulatory elements of stomatal development genes to improve water-use efficiency and resilience to drought in rice.
- 2011 - 2016 *Bergmann Lab, Stanford University, USA.*
- Cell fate transitions and terminal differentiation in the Arabidopsis stomatal lineage.
 - Establishment of a grass model for stomatal development.
- 2007 - 2009 *Plant Molecular Biology Lab, ESALQ - Universidade de São Paulo, Brazil.*
- Heterologous expression of SUGARWIN1 in E. coli and its effects on Diatraea saccharalis development and fungi growth.
- 2005 - 2009 *Protein Biochemistry Lab, ESALQ - Universidade de São Paulo, Brazil.*
- PreproRALF1 prehormone processing and active peptide releasing in Arabidopsis thaliana.
 - Heterologous expression of RALF1 active peptide in E. coli, and its effects on Arabidopsis and Sugarcane cell suspension culture growth and plant development.
- Sep-Dec 2008 *Grotewold Lab, Ohio State University, USA.*
- Protein-protein interactions using the Y2H system and Agrobacterium-mediated transient expression in Tobacco.

Fellowships & Awards

- 2019 **Genome Engineer Innovator Grant**, Synthego Corp
- 2017 - 2019 **IGI Postdoctoral Fellowship**, Innovative Genomics Institute (IGI)
- 2014 **Emerging Scientist Award - Graduate Student**, Int. Conf. on Arabidopsis Research (ICAR)
- 2014 **Best Talk Award**, Carnegie Institution for Science - Dept. of Plant Biology
- 2014 **Hoefer Prize for excellence in mentoring undergraduate writing**, Stanford University
- 2011 - 2014 **Charles Yanofsky Graduate Fellowship**, Stanford University
- 2013 **Excellence in Teaching Award**, Dept. of Biology - Stanford University
- 2012 **Excellence in Teaching Award**, Dept. of Biology - Stanford University
- 2010 - 2011 **Graduate Assistant Fellowship**, Stanford University
- 2006 - 2009 **FAPESP Undergraduate Research Fellowship**, Brazil
- Sep-Dec 2008 **CAPES/FIPSE Exchange Program Fellowship**, Ohio State University