

Dr. rer. nat. Diego Mauricio Riaño-Pachón

CONTACT INFORMATION

E-mail: diriano@gmail.com
Cellphone: +55 19 99921 7555
Address: Rua Leão XIII, 144, Piracicaba, São Paulo, Brazil
WWW: <https://diriano.github.io/>
Lattes: <http://lattes.cnpq.br/2580825196325707>
RG: http://researchgate.net/profile/Diego_Mauricio_Riano-Pachon
LinkedIn: <https://www.linkedin.com/in/diegorianopachon>
Google Scholar: <https://scholar.google.com.br/citations?user=6rghd24AAAAJ>

PERSONAL INFORMATION

Nationality	Colombian.
Marital status	Married.
Place of birth	Bogotá D.C., Colombia
Current professional address	Center for Nuclear Energy in Agriculture University of São Paulo Avenida Centenario, 303 Piracicaba, SP, Brazil.

PROFESSIONAL PROFILE

My background is in biology and bioinformatics, computational biology. I am interested in the evolution of biological networks in general, and gene regulatory networks in particular; as well as in the evolution of gene families, molecular characterization of organisms, predicting the function of non-coding RNAs, genome annotation, machine learning, classification problems, identification and evolution of protein domains and the development of integrative databases for omics data.

Recently, I have been working mostly with data coming from Next Generation Sequencing (NGS) technologies. I have dealt with data from second and third generation DNA sequencing technologies in order to reconstruct full genome sequences and call polymorphisms from bacteria, green algae, land plants and fungi. We have also reconstructed complex transcriptomes from angiosperms and fungi, and plant-pathogen interactions in order to elucidate their molecular basis, and in developing molecular markers that could aid selection of resistant varieties or cultivars. During the last approx. 8 years I have been applying NGS data to understand biological processes related to biomass production (sugarcane and eukaryotic algae) and biomass conversion (fungi and bacteria).

EDUCATION

Universität Potsdam, Potsdam, Germany
Molecular Biology Department

Dr. rer. nat. Plant Molecular Biology (November 28th, 2008).

- Thesis: "Identification of transcription factor genes in plants".
- Supervisor: Prof. Dr. Bernd Müller-Röber.
- Doctoral committee: Prof. Dr. Erich Grotewold, Prof. Dr. Carsten Beta, Prof. Dr. Martin Steup, P.D. Dr. Ingo Dreyer, P.D. Dr. Stefan Rensing, Dr. Dirk Hinch
- Evaluation: Summa cum laude.

Universidad Nacional de Colombia, Bogotá D.C., Colombia
Biology Department

Biologist (April 6th, 2001)

- Thesis: “Molecular characterization of *Vibrio cholerae* isolates using pulsed field gel electrophoresis”.
- Supervisor: Prof. Asoc. Emilia María Valenzuela de Silva.
- Evaluation: Meritorious mention.

HONOURS

Prêmio Octavio Frias de Oliverira 2016 - Modalidade Pesquisa em Oncologia, **Instituto do Câncer do Estado de São Paulo**, São Paulo, Brazil, 2016.

Short research grant at the Prof. Dr. Erich Grotewold Lab, Ohio State University. Granting agency: **Human Frontier Science Program Organization**. January to March, 2010.

Dr. rer. nat. degree *Summa cum laude*. **Universität Potsdam**. November, 2008.

Undergraduate thesis in Biology with meritorious mention. **Universidad Nacional de Colombia**. April, 2001.

Third place, Best Undergraduate Theses XI version. Category Health Sciences. **Universidad Nacional de Colombia**. 2001.

PROFESSIONAL AND ACADEMIC EXPERIENCE (LAST FIVE YEARS)

May 2018 - current

Assistant Professor
Computational, Evolutionary and Systems Biology Laboratory
Center for Nuclear Energy in Agriculture
University of São Paulo
Piracicaba, SP, Brazil

January 2017 - January 2018

Postdoctoral Fellow
Regulatory Systems Biology Lab
Department of Biochemistry, Institute of Chemistry
University of São Paulo
São Paulo, SP, Brazil

February 2013 - November 2016

Scientific Researcher - Group Leader
Brazilian Bioethanol Science and Technology Laboratory (CTBE)
Brazilian Center for Research in Energy and Materials (CNPEM)
Campinas, SP, Brazil

August 2010 - December 2012

Assistant Professor
Universidad de los Andes
Bogotá D.C., Colombia

SELECTED WORKS PRESENTED IN CONGRESSES AND CONFERENCES (PRESENTER IN BOLD FACE)

RIAÑO-PACHÓN, D.M., Bioinformatics and genomics resources for bioenergy in Brazil: The case of Sugarcane and *Kalmanozyma brasiliensis*. *Second International Conference in Bioinformatics, Simulations and Modeling (iCBSM2017)*, November 20th-24th 2017, Talca, Chile.

SANTOS, R.A.C., BORGES, T.A., BORIN, G.P., SIMAS, P.V.M., GOLDMAN, G.H., ROSA, C.A., OLIVEIRA, J.V.C., **RIAÑO-PACHÓN, D.M.**, Understanding the metabolism of hemicellulosic sugars from omics of the yeast-like fungus *Kalmanozyma brasiliensis* GHG001 and the Comparative Genomics with Ustilaginaceae (Basidiomycetes). Brazilian BioEnergy Science and Technology Conference (BBEST 2017), October 17th-19th 2017, Campos de Jordão, São Paulo, Brazil.

BORIN, G.P., CARAZZOLLE, M.F., **RIAÑO-PACHÓN, D.M.**, OLIVEIRA, J.V.C., Identifying potential new genes related to lignocellulose degradation using transcriptome and gene co-expression network analysis in *Trichoderma reesei* RUT-C30. Brazilian Bio-Energy Science and Technology Conference (BBEST 2017), October 17th-19th 2017, Campos de Jordão, São Paulo, Brazil.

RIAÑO-PACHÓN, D.M., Identifying key genes for pentose metabolism in the ustilaginaceous yeast *Kalmanozyma brasiliensis* and development of ploidyNGS and TCDB-HMM. *IV Congreso Colombiano de Biología Computacional y Bioinformática*, September 13th-15th 2017, Santiago de Cali, Colombia.

SERRANO-BERMEDEZ, L.M., **PEREZ-MANCILLA, X.**, GONZÁLEZ-BARRIOS, A.F., **RIAÑO-PACHÓN, D.M.**, MONTOYA, D., Finding the metabolic potential of solventogenic *Clostridium butyricum* isolated from Colombian soils, September 13th-15th 2017, Santiago de Cali, Colombia.

RIAÑO-PACHÓN, D.M., L. MATTIELLO, L. CRUZ, Surveying the sugarcane genome: Exploiting synthetic long reads. 9th *Tripartite Meeting: OSU-Rutgers-USP*, October 30th - November 2nd 2016, Maresias, São Paulo, Brazil.

RIAÑO-PACHÓN, D.M., L. MATTIELLO, L. CRUZ, Surveying the sugarcane genome: Exploiting synthetic long reads. *Brazilian International Congress on Genetics: Genetics 2016*, September 11th - 14th 2016, Caxambu, Minas Gerais, Brazil.

LOPES, L.S., M.L. BONATELLI, C.A. LABATE, **D.M. RIAÑO-PACHÓN**, Genome sequencing of three bacterial isolates contaminating industrial ethanolic fermentations. *Brazilian International Congress on Genetics: Genetics 2016*, September 11th - 14th 2016, Caxambu, Minas Gerais, Brazil.

SANTOS, R.A.C., G. H. GOLDMAN, **D.M. RIAÑO-PACHÓN**, Phylogenomic analysis and comparative genomics of Ustilaginaceae (Basidiomycetes): Exploiting evolutionary information to uncover probable regulatory mechanisms of CAZyme expression. *Brazilian International Congress on Genetics: Genetics 2016*, September 11th - 14th 2016, Caxambu, Minas Gerais, Brazil.

RIAÑO-PACHÓN, D.M., Exploring the sugarcane genome (SP80-3280) exploiting Illumina TruSeq synthetic long reads and strand-specific RNASeq. *Primeiro Encontro Nacional de Química Biotecnológica e Agroindustrial*, September 8th - 11th 2015, Ribeirão Preto, São Paulo, Brazil.

PEREZ MANCILLA, X, J-P. ROSAS, D. MONTOYA CASTAÑO, **D.M. RIAÑO-PACHÓN**, Genomic Analyses of Colombian *Clostridium* Strains with Biotechnological Potential. 28th *Brazilian Microbiology Congress*, October 18th - 22th 2015, Florianópolis, Santa Catarina, Brazil.

GAITÁN-CHAPARRO, S.L. **H.M. ROMERO, D.M. RIAÑO-PACHÓN**, Transcriptome analysis of the oil palm during its interaction with *Thielaviopsis paradoxa*. *XXII Plant and Animal Genome*, January 11th - 15th 2014, San Diego, California, USA.

RIAÑO-PACHÓN, D.M., Computational methods for the identification of regulatory genes in Stramenopiles. *XXII Latin American Congress on Microbiology - ALAM 2014*, November 5th - 8th 2014, Cartagena, Colombia.

CRISTANCHO, M., W. GIRALDO, D. BOTERO, J. TABIMA, D. ORTIZ, A. PERALTA, A. GAITÁN, D.M. RIAÑO-PACHÓN, Application of genome studies of Coffee rust. *2nd Colombian Congress on Computational Biology and Bioinformatics*, September 25th - 27th 2013, Manizales, Colombia.

GONZÁLEZ-GARCÍA, L.N., J.C. CASTRO, D. A. URBINA-GÓMEZ, R. SIERRA, S. TINAJACÁ, C. NÚSTEZ, A. BERNAL, D.M. RIAÑO-PACHÓN, S. RESTREPO, Novedosa aproximación al análisis de datos de SAGE para la estimación de genes implicados en el tizón tardío de la papa criolla. *2nd Colombian Congress on Computational Biology and Bioinformatics*, September 25th - 27th 2013, Manizales, Colombia.

GAITÁN-CHAPARRO, S.L. **H.M. ROMERO**, D.M. RIAÑO-PACHÓN, Sequencing and annotation of the transcriptome of OilPalm during the interaction with *Thielaviopsis paradoxa*. *2nd Colombian Congress on Computational Biology and Bioinformatics*, September 25th - 27th 2013, Manizales, Colombia.

URBINA-GÓMEZ, DA, B. MUELLER-ROEBER, M.A. OMIDBAKHSFARD, F.V. WINCK, D.M. RIAÑO-PACHÓN, An analysis pipeline for FAIRE-seq data. *20th Annual International Conference on Intelligent Systems for Molecular Biology*, July 15th - 17th 2012, Long Beach, California, USA.

GALVEZ, E, D.H. PIEPER, H. JUNCA, D.M. RIAÑO-PACHÓN, Automated method for annotation of genes involved in the degradation of polycyclic aromatic hydrocarbons (PAH) from genomic, metagenomic and metatranscriptomic sequence reads. *20th Annual International Conference on Intelligent Systems for Molecular Biology*, July 15th - 17th 2012, Long Beach, California, USA.

BOTERO-ROZO, DO, W. GIRALDO, A. GAITAN, M. CRISTANCHO, D.M. RIAÑO-PACHÓN, S. RESTREPO, Data Mining of the Coffee Rust Genome. *ISCB - Latin America*, March 17th - 22th 2012, Santiago, Chile.

GONZALEZ-GARCIA, LN, C. VANEGAS, D.M. RIAÑO-PACHÓN, Comparing the potential for identification of *Lactobacillus* spp. of 16S rRNA variable regions. *ISCB - Latin America*, March 17th - 22th 2012, Santiago, Chile.

URBINA-GÓMEZ, DA, F.V. WINCK, B. MUELLER-ROEBER, D.M. RIAÑO-PACHÓN, FAIRE-seq data analysis of Chlamydomonas reinhardtii under carbon deprivation. *ISCB - Latin America*, March 17th - 22th 2012, Santiago, Chile.

BUITRAGO-FLOREZ, FJ, S. RESTREPO, D.M. RIAÑO-PACHÓN, Identification of transcription factor genes and their correlation with the high diversity of Stramenopiles. *ISCB - Latin America*, March 17th - 22th 2012, Santiago, Chile.

RIAÑO-PACHÓN, DM, S. RESTREPO, B. MUELLER-ROEBER, F.J. BUITRAGO-FLOREZ, Identification of transcription regulation associated proteins in plants and stramenopiles. *ISCB - Latin America*, March 17th - 22th 2012, Santiago, Chile.

BUITRAGO-FLOREZ, FJ, S. RESTREPO, D.M. RIAÑO-PACHÓN, Identification of transcription factor genes in Stramenopiles. *First Colombian Congress on Computational Biology*, March 23rd - 25th 2011, Bogotá, Colombia.

RIAÑO-PACHÓN, D.M. Secuenciación y anotación del genoma de Selaginella: Entendiendo la evolución de las plantas vasculares. *XLVI Congreso Nacional de Ciencias Biológicas*, October 11th - 14th 2011, Medellín, Colombia.

RIAÑO-PACHÓN, D.M. Identification and Evolution of Transcription Factors in Plants. *III Nacional and I International Workshop Advances in Biotechnology*, September 29th - 30th 2011, Universidad Incca de Colombia, Bogotá, Colombia.

KLEESSEN, S., M. LOHSE, D.M. RIAÑO-PACHÓN, G. SCHWEIZER, B. KERSTEN, Towards transcriptomic markers for drought tolerance in Barley. *German Conference on Bioinformatics*, September 20th - 22th, 2010, Braunschweig, Germany.

RIAÑO-PACHÓN, D.M., P. DUREK, S. KLEESSEN, J. NEIGENFIND, W. ENGELSBERGER, D. WALTHER, J. SELBIG, W. SCHULZE, **B. KERSTEN**, Protein phosphorylation patterns affected by nuclear DNA polymorphisms in a genome-wide scale in Arabidopsis. *Plant GEM Lisbon 2009*, October 7th - 10th, 2009, Lisbon, Spain.

MUELLER-ROEBER, B., S. ARVIDSSON, S. BALAZADEH, L.G.G. CORRÊA, P. PÉREZ-RODRÍGUEZ AND D.M. RIAÑO-PACHÓN, Gene regulatory networks and transcription factor transcriptomics. 14th *The European Congress on Biotechnology*, Septiembre 13th - 16th, 2009, Barcelona, Spain.

RIAÑO-PACHÓN, D.M., A. NAGEL, R. WAGNER, R. BASEKOW, J. NEIGENFIND, E. WEBER, S. KLEESSEN AND B. KERSTEN, GabiPD: The Gabi Primary Database - a plant integrative 'omics' database - update (Poster E03). 17th *Annual International Conference on Intelligent Systems for Molecular Biology and 8th European Conference on Computational Biology*, June 27th - July 2nd, 2009, Stockholm, Sweden.

ARVIDSSON, S., M. KWASNIEWSKI, D.M. RIAÑO-PACHÓN, B. MUELLER-ROEBER, QuantPrime - a flexible tool for reliable highthroughput primer design for quantitative PCR. *qPCR 2009*, March 9th - 13th, 2009, Freising-Weihenstephan, Germany.

RIAÑO-PACHÓN, D.M., Identificación de factores de transcripción en plantas - un enfoque computacional. *Instituto de Genética, Universidad Nacional de Colombia*, April 1st, 2009, Bogotá D C., Colombia.

RIAÑO-PACHÓN, D.M., GabiPD y PlnTFDB: Integrando datos de genómica funcional (-ómicas) en plantas. *Instituto de Biotecnología, Universidad Nacional de Colombia*, April 2nd, 2009, Bogotá D C., Colombia.

WINCK F.V., M. KWASNIEWSKI, D.M. RIAÑO-PACHÓN, B. MUELLER-ROEBER, Towards Chlamydomonas nuclear proteomics: Optimizing the isolation of nuclei and aggregating information (Poster). *Bridging Public and Private Research On Bioinformatics and Proteomics*, December 3rd - 4th, 2008, Geneva, Switzerland.

RIAÑO-PACHÓN D.M., A. NAGEL, J. NEIGENFIND, R. WAGNER, E. WEBER, S. DIEHL, B. KERSTEN, GabiPD: Gabi Primary Database - A plant integrative 'omics' database (Poster B22). 7th *European Conference on Bioinformatics*, September 21st - 26th, 2008, Cagliari, Sardinia, Italy.

CORRÊA L.G.G., D.M. RIAÑO-PACHÓN, C.G. SCHRAGO, R.V. DOS SANTOS, B. MUELLER-ROEBER AND M. VINCENTZ, Green evolutionary history of bZIP transcription factors (Poster 264). *German Conference on Bioinformatics*, September 26th - 28th, 2007, Potsdam, Germany.

CORRÊA, L.G.G., R. VICENTINI, D.M. RIAÑO-PACHÓN, B. MUELLER-ROEBER, AND M. VINCENTZ, From Chlamydomonas to Arabidopsis: a bZIP history (P-380). 18th *In-*

ternational Conference on Arabidopsis Research, June 20th - 23rd, 2007, Beijing, China.

RIAÑO-PACHÓN, D.M., I. DREYER, S. RUZICIC, AND B. MUELLER-ROEBER, Plant Transcription Factors at Uni-Potsdam.de (Poster M-4). 14th *Annual International Conference on Intelligent Systems for Molecular Biology*, August 10th - 12th, 2006, Fortaleza, Brazil.

CORRÊA, L.G.G., S. BALAZADEH, **D.M. RIAÑO-PACHÓN**, AND B. MUELLER-ROEBER, Functional analysis of transcription factors that play important roles in leaf development and/or physiology at sink-to-source transition and the onset of senescence (Poster TUE-159). 8th *International Congress of Plant Molecular Biology*, August 20th - 25th, 2006, Adelaide, Australia.

CALDANA, C., B. MUELLER-ROEBER, **D.M. RIAÑO-PACHÓN** AND S. RUZICIC, Transcription factor networks in the initial phase of salt stress in rice. 8th *International Congress of Plant Molecular Biology*, August 20th - 25th, 2006, Adelaide, Australia.

RIAÑO-PACHÓN D.M., I. DREYER AND B. MUELLER-ROEBER, Are biological networks scale-free graphs? *Workshop on Molecular Interactions*, April 3rd - 5th, 2006, Berlin, Germany.

RUZICIC S., C. CALDANA, M. SOLTANINAJAFABADI, **D.M. RIAÑO-PACHÓN** AND B. MUELLER-ROEBER, Comparative expression profiling of different rice varieties during initial phase of abiotic stress (Poster 329). 5th *International Rice Genetics Symposium and 3rd International Rice Functional Genomics Symposium*, November 19th - 23th, 2005, Manila, Filipines.

CALDANA C., S. RUZICIC, **D.M. RIAÑO-PACHÓN** AND B. MULLER-ROEBER, Genome-wide identification of transcription factors involved in the initial phase of salt stress in rice (Poster 457). 16th *International Conference on Arabidopsis Research* June 15th - 19th, 2005, Winsconsin University, Madison, USA.

GÓMEZ-PORRAS J.L., **D.M. RIAÑO-PACHÓN**, I. DREYER AND B. MUELLER-ROEBER, Analysis of Non-coding Regions in *Arabidopsis thaliana* (Poster A-14). 12th *Annual International Conference on Intelligent Systems for Molecular Biology and 4th European Conference on Computational Biology*, July 31st - August 4th, 2005, Glasgow, United Kingdom.

SCIENTIFIC
REVIEWER

- Nucleic Acids Research
- Revista Colombiana de Biotecnología
- Acta Biológica Colombiana
- Molecular Plant
- BMC Evolutionary Biology
- BMC Plant Biology
- BMC Genomics
- Functional and Integrative Genomics
- Universidad de Caldas, Manizales, Colombia
- Universidad Nacional de Colombia, Bogotá, Colombia
- Fundación Alejandro Ángel Escobar, Becas Colombia Biodiversa

SCIENTIFIC
JOURNAL EDITOR

- BMC Bioinformatics
- Tropical Plant Biology
- Frontiers in Plant Science

PUBLICATIONS

- [1] A. Fanelli, D. M. Rancour, M. Sullivan, S. D. Karlen, J. Ralph, D. M. Riaño-Pachón, R. Vicentini, T. d. F. Silva, A. Ferraz, R. D. Hatfield, and E. Romanel. Overexpression of a sugarcane bahlac acyltransferase alters hydroxycinnamate content in maize cell wall. *Frontiers in plant science*, 12:626168, 2021.
- [2] J. R. de Almeida, D. M. Riaño Pachón, L. M. Franceschini, I. B. Dos Santos, J. A. Ferrarezi, P. A. M. de Andrade, C. B. Monteiro-Vitorello, C. A. Labate, and M. C. Quecine. Revealing the high variability on nonconserved core and mobile elements of austropuccinia psidii and other rust mitochondrial genomes. *PloS one*, 16:e0248054, 2021.
- [3] V. C. H. da Silva, M. C. M. Martins, M. J. Calderan-Rodrigues, A. Artins, C. C. Monte Bello, S. Gupta, T. J. P. Sobreira, D. M. Riaño-Pachón, V. Mafra, and C. Caldana. Shedding light on the dynamic role of the "target of rapamycin" kinase in the fast-growing c4 species setaria viridis, a suitable model for biomass crops. *Frontiers in plant science*, 12:637508, 2021.
- [4] A. F. Busso-Lopes, C. M. Carnielli, F. V. Winck, F. Malta de Sá Patroni, A. Karina de Oliveira, D. C. Granato, R. A. Pereira E Costa, R. R. Domingues, B. A. Pauletti, D. M. Riaño-Pachón, J. Aricetti, C. Caldana, E. Graner, R. Della Coletta, K. Dryden, J. W. Fox, and A. F. Paes Leme. A reductionist approach using primary and metastatic cell-derived extracellular vesicles reveals hub proteins associated with oral cancer prognosis. *Molecular & cellular proteomics : MCP*, page 100118, 2021.
- [5] T. Arias, D. M. Riaño-Pachón, and V. S. Di Stilio. Genomic and transcriptomic resources for candidate gene discovery in the ranunculids. *Applications in plant sciences*, 9:e11407, Jan. 2021.
- [6] A. C. Cunha, R. A. C. D. Santos, D. M. Riaño-Pachon, F. M. Squina, J. V. C. Oliveira, G. H. Goldman, A. T. Souza, L. S. Gomes, F. Godoy-Santos, J. A. Teixeira, F. Faria-Oliveira, I. C. Rosse, I. M. Castro, C. Lucas, and R. L. Brandão. Draft genome sequence of wickerhamomyces anomalus lbcm1105, isolated from cachaça fermentation. *Genetics and molecular biology*, 43:e20190122, 2020.
- [7] D. Lloyd Evans, T. T. Hlongwane, S. V. Joshi, and D. M. Riaño Pachón. The sugarcane mitochondrial genome: assembly, phylogenetics and transcriptomics. *PeerJ*, 7:e7558, 2019.
- [8] F. M. M. Hurtado, M. d. S. Pinto, P. N. d. Oliveira, D. M. Riaño-Pachón, L. B. Inocente, and H. Carrer. Analysis of nac domain transcription factor genes of tectona grandis l.f. involved in secondary cell wall deposition. *Genes*, 11, Dec. 2019.
- [9] B. C. Fonseca, D. M. Riaño-Pachón, M.-E. Guazzaroni, and V. Reginatto. Genome sequence of the h₂-producing clostridium beijerinckii strain br21 isolated from a sugarcane vinasse treatment plant. *Genetics and molecular biology*, 42:139–144, 2019.
- [10] B. S. Fernandes, O. Dias, G. Costa, A. A. Kaupert Neto, T. F. C. Resende, J. V. C. Oliveira, D. M. Riaño-Pachón, M. Zaiat, J. G. C. Pradella, and I. Rocha. Genome-wide sequencing and metabolic annotation of pythium irregulare cbs 494.86: understanding eicosapentaenoic acid production. *BMC biotechnology*, 19:41, June 2019.
- [11] J. C. Castro, I. Valdés, L. N. Gonzalez-García, G. Danies, S. Cañas, F. V. Winck, C. E. Núñez, S. Restrepo, and D. M. Riaño-Pachón. Gene regulatory networks on transfer entropy (grnte): a novel approach to reconstruct gene regulatory interactions applied to a case study for the plant pathogen phytophthora infestans. *Theoretical biology & medical modelling*, 16:7, Apr. 2019.

- [12] P. F. de Gouvêa, A. V. Bernardi, L. E. Gerolamo, E. de Souza Santos, D. M. Riaño-Pachón, S. A. Uyemura, and T. M. Dinamarco. Transcriptome and secretome analysis of *aspergillus fumigatus* in the presence of sugarcane bagasse. *BMC genomics*, 19:232, Apr. 2018.
- [13] G. P. Borin, M. F. Carazzolle, R. A. C. dos Santos, D. M. Riaño-Pachón, and J. V. d. C. Oliveira. Gene co-expression network reveals potential new genes related to sugarcane bagasse degradation in *trichoderma reesei* rut-30. *Frontiers in Bioengineering and Biotechnology*, 6:151, 2018.
- [14] D. Riaño Pachón and L. Mattiello. Draft genome sequencing of the sugarcane hybrid sp80-3280 [version 2; referees: 2 approved]. *F1000Research*, 6(861), 2017.
- [15] L. Pereira Silva, P. Alves de Castro, T. F. Dos Reis, M. H. Paziani, M. R. Von Zeska Kress, D. M. Riaño-Pachón, D. Hagiwara, L. N. A. Ries, N. A. Brown, and G. H. Goldman. Genome-wide transcriptome analysis of *aspergillus fumigatus* exposed to osmotic stress reveals regulators of osmotic and cell wall stresses that are *saka(hog1)* and *mpkc* dependent. *Cellular microbiology*, 19, Apr. 2017.
- [16] P. M. Nobile, A. Bottcher, J. L. S. Mayer, M. S. Brito, I. A. Dos Anjos, M. G. d. A. Landell, R. Vicentini, S. Creste, D. M. Riaño-Pachón, and P. Mazzafera. Identification, classification and transcriptional profiles of dirigent domain-containing proteins in sugarcane. *Molecular genetics and genomics : MGG*, July 2017.
- [17] B. L. Mello, A. M. Alessi, D. M. Riaño-Pachón, E. R. deAzevedo, F. E. G. Guimarães, M. C. Espirito Santo, S. McQueen-Mason, N. C. Bruce, and I. Polikarpov. Targeted metatranscriptomics of compost-derived consortia reveals a *gh11* exerting an unusual $\text{exo-1,4-}\beta\text{-xylanase}$ activity. *Biotechnology for biofuels*, 10:254, 2017.
- [18] A. O. Manfiolli, P. A. de Castro, T. F. Dos Reis, S. Dolan, S. Doyle, G. Jones, D. M. Riaño-Pachón, M. Ulas, L. M. Noble, D. J. Mattern, A. A. Brakhage, V. Valiante, R. Silva-Rocha, O. Bayram, and G. H. Goldman. *Aspergillus fumigatus* protein phosphatase *ppza* is involved in iron assimilation, secondary metabolite production, and virulence. *Cellular microbiology*, 19, Dec. 2017.
- [19] F. Mandelli, M. B. Couger, D. A. A. Paixão, C. B. Machado, C. M. Carnielli, J. A. Aricetti, I. Polikarpov, R. Prade, C. Caldana, A. F. Paes Leme, A. Z. Mercadante, D. M. Riaño-Pachón, and F. M. Squina. Thermal adaptation strategies of the extremophile bacterium *thermus filiformis* based on multi-omics analysis. *Extremophiles : life under extreme conditions*, 21:775–788, July 2017.
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