



Speakers' Biographies & CVs

Anderson Ferreira da Cunha



Dr. Anderson Ferreira da Cunha graduated in Biological Sciences from the Universidade Estadual de Campinas (Unicamp) in 1997 and completed his PhD in Functional and Molecular Biology in 2004 also at Unicamp. His PhD thesis was on the development of flocculant yeast for industrial application. He is a professor at the Universidade Federal de São Carlos (UFSCar), coordinating the Biochemistry and Applied Genetics Laboratory. Currently, he serves as the Department Head of the Genetics and Evolution Department at UFSCar. Anderson was the coordinator of the Bachelor program

in Biotechnology between the 2010 to 2014. He is also an associate researcher at the Blood Center at Unicamp. His research focuses on identifying thermotolerant and ethanol resistant yeasts for use in alcoholic fermentation, genomic and transcriptomic analysis in termites to search for proteins with biotechnological interest. He also works with analyzing expression of genes associated with oxidative stress in hemolytic anemias.

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Súmula Curricular

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1. Education

Year	Title	Institution	Location
2006	Post doctorate	Universidade Estadual de Campinas	Campinas, SP, Brazil
2004	PhD - Functional and Molecular Biology	Universidade Estadual de Campinas	Campinas, SP, Brazil

1997	BSc - Biology	Universidade Estadual de Campinas	Campinas, SP, Brazil
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2. Professional experience

Year	Title	Institution	Location
2009-present	Professor	Universidade Federal de São Carlos	São Carlos, SP, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Rocha, Marina Campos ; Godoy, Krissia Franco De ; De Castro, Patrícia Alves ; Hori, Juliana Issa ; Bom, Vinícius Leite Pedro ; Brown, Neil Andrew ; Cunha, **Anderson Ferreira Da** ; Goldman, Gustavo Henrique ; Malavazi, Iran . (2015). The *Aspergillus fumigatus* pkcAG579R Mutant Is Defective in the Activation of the Cell Wall Integrity Pathway but Is Dispensable for Virulence in a Neutropenic Mouse Infection Model. *Plos One*, v. 10, p. e0135195
2. Domingos, Igor F. ; Falcão, Diego A. ; Hatzlhofer, Betania L. ; **Cunha, Anderson F.** ; Santos, Magnun N. ; Albuquerque, Dulcinéia M. ; Fertrin, Kleber Y. ; Costa, Fernando F. ; Azevedo, Renata C. ; Machado, Cíntia G. ; Araújo, Aderson S. ; Lucena-Araujo, Antonio R. ; Bezerra, Marcos A. (2014) Influence of the β s haplotype and α -thalassemia on stroke development in a Brazilian population with sickle cell anaemia. *Annals of Hematology (Print)*, v. 93, p. 1123-1129.4.
3. Roversi, FM ; **Cunha, Anderson F** ; Brugnerotto, Ana F. ; Carazzolle, M. F. ; Albuquerque, D. M. ; Lanaro, C ; Machado-Neto, J. A. ; Saad, S. T. O. ; Costa, F. F. . (2013) Gene Expression Analysis of the Brazilian Type of Hereditary Persistence of Fetal Hemoglobin: Identification of Genes that Could be Related to γ -Globin Activation. *Hemoglobin*, p. 1-34.
4. Mascarenhas, Cintia ; **Cunha, Anderson F** ; Brugnerotto, Ana F. ; Gambero, Sheley ; Almeida, M. H. ; Carazzolle, M. F. ; Traina, F. ; Costa, Fernando Ferreira ; Souza, C. A. (2013) Identification of Target Genes Using Gene Expression Profile of Granulocytes From Chronic Myeloid Leukemia (Cml) Patients Treated With Tyrosine Kinase Inhibitors. *Leukemia & Lymphoma (Print)*, p. 1-24.
5. Leonardo, F.C. ; **da Cunha, A.F.** ; da Silva, M.J. ; Carazzolle, M.F. ; Costa-Leonardo, A.M. ; Costa, F.F. ; Pereira, G.A. (2011) Analysis of the workers head transcriptome of the Asian subterranean termite, *Coptotermes gestroi*. *Bulletin of Entomological Research*, v. 101, p. 383-391.
6. **da Cunha, A. F.** ; Brugnerotto, A. F. ; Duarte, A. S. ; Lanaro, C. ; Costa, G. G. L. ; Saad, S. T. O. ; Costa, F. F. (2010). Global gene expression reveals a set of new genes involved in the modification of cells during erythroid differentiation. *Cell Proliferation*, v. 43, p. 297-309.
7. **da Cunha, Anderson F.** ; Brugnerotto, Ana F. ; Finzi Corat, Marcus A. ; Devlin, Emily E. ; Gimenes, Ana P. ; Barbosa de Melo, Mônica ; Corrêa Passos, Luiz A. ; Bodine, David ; Saad, Sara T.O. ; Costa, Fernando F. (2009) High Levels of Human γ -Globin are Expressed in Adult Mice Carrying a Transgene of the Brazilian Type of Hereditary Persistence of Fetal Hemoglobin (A γ -195). *Hemoglobin*, v. 33, p. 439-447.
8. Mascarenhas, Cintia ; **Cunha, Anderson** ; Miranda, Eliana ; Zulli, Roberto ; Silveira, Rosana ; Costa, Fernando ; Pagnano, Katia ; De Souza, Carmino . (2009) New mutations detected by denaturing high performance liquid chromatography during screening of exon 6 bcr-abl mutations in patients with chronic myeloid leukemia treated with tyrosine kinase inhibitors. *Leukemia and Lymphoma*, v. 50, p. 1148-1154.
9. Argueso, J. L. ; Carazzolle, M. F. ; **Cunha, A. F.** ; Missawa, S. K. ; Costa, G. G.L. ; Noronha, M. F. ; Mieczkowski, P. A. ; Duarte, F. M. ; Dominska, M. ; Andrietta, M. G.S. ; Petes, T. D. ; Alcarde, A. R. ; Gomes, L. H. ; Galzerani, F. ; Andrietta, S. R. ; Dietrich, F. S. ; Tavares, F. C.A. ; Vidal, R. O. ; Pereira, G.A. G. ; Pereira, G. A.G. ; Netto, O. V.C. ; McCusker, J. H. (2009) Genome structure of a *Saccharomyces cerevisiae* strain widely used in bioethanol production. *Genome Research*, v. 19, p. 2258-2270..
10. dos Santos, Camila O. ; Zhou, Suiping ; Secolin, Rodrigo ; Wang, Xiaomei ; Cunha, Anderson F. ; Higgs, Douglas R. ; Kwiatkowski, Janet L. ; Thein, Swee Lay ; Gallagher, Patrick G. ; Costa, Fernando F. ; Weiss, Mitchell J. (2008) Population analysis of the alpha hemoglobin stabilizing

- protein (AHSP) gene identifies sequence variants that alter expression and function. *American Journal of Hematology*, v. 83, p. 103-108.
11. da Costa Reis Monte-Mór, B ; Plo, I ; **da Cunha, A F** ; Costa, G G L ; de Albuquerque, D M ; Jedidi, A ; Villevall, J-L ; Badaoui, S ; Lorand-Metze, I ; Pagnano, K B B ; Saad, S T O ; Vainchenker, W ; Costa, F F (2008) Constitutive JunB expression, associated with the JAK2 V617F mutation, stimulates proliferation of the erythroid lineage. *Leukemia*, v. 23, p. 144-152.
 12. Mondego, Jorge MC Vidal, Ramon O Gramacho, Karina P Cunha, A. F. Rincones, Johana Pereira, G.A. G. Pereira, Goncalo Ag Cotomacci, Carolina Formighieri, Eduardo F Estrela, Raissa C Carazzolle, Marcelo F Araujo, Marcos Renato R De Oliveira, Bruno V Meinhardt, Lyndel W Thomazella, Daniela Pt Garcia, Odalys De Moraes, Marcos H Costa, Gustavo Gl Cascardo, Julio Cm Castro, Luis AB Guiltinan, Mark J Carraro, Dirce M Bailey, Bryan A Goncalves, Marilda S Pires, Acassia BL , et al. ; (2008) A genome survey of *Moniliophthora perniciosa* gives new insights into Witches' Broom Disease of cacao. *BMC Genomics*, v. 9, p. 548.
 13. Chagas Costa, Flávia ; **Ferreira da Cunha, Anderson** ; Fattori, André ; de Sousa Peres, Tarcísio ; Gilson Lacerda Costa, Gustavo ; Ferraz Machado, Tiago ; Martins de Albuquerque, Dulcinéia ; Gambero, Sheley ; Lanaro, Carolina ; Olala Saad, Sara T. ; Ferreira Costa, Fernando . (2007) Gene expression profiles of erythroid precursors characterise several mechanisms of the action of hydroxycarbamide in sickle cell anaemia. *British Journal of Haematology (Print)*, v. 136, p. 333-342.
 14. Monte-Mór, B. C. ; **Cunha, A. F.** ; Pagnano, KBB ; Saad, Sarah T O ; Lorand Metze, I. ; Costa, Fernando Ferreira . (2007) JAK2 V617F prevalence in Brazilian patients with polycythemia vera, idiopathic myelofibrosis and essential thrombocythemia. *Genetics and Molecular Biology*, v. 30, p. 336-338.
 15. **Cunha, Anderson F.** ; Missawa, Silvia K. ; Gomes, Luiz H. ; Reis, Sergio F. ; Pereira, Goncalo A. G. . (2006) Control by sugar of *Saccharomyces cerevisiae* flocculation for industrial ethanol production. *FEMS Yeast Research*, v. 6, n.2, p. 280-287.
 16. Hollanda, Luciana M ; Lima, Carmen S P ; **Cunha, Anderson F** ; Albuquerque, Dulcinéia M ; Vassallo, José ; Ozelo, Margareth C ; Joazeiro, Paulo P ; Saad, Sara T O ; Costa, Fernando F. (2006) An inherited mutation leading to production of only the short isoform of GATA-1 is associated with impaired erythropoiesis. *Nature Genetics*, v. 38, p. 807-812, 2006.
 17. de Andrade, Tiago Gomes ; Peterson, Kenneth R. ; **Cunha, Anderson F.** ; Moreira, Luciana Sarmento ; Fattori, André ; Saad, Sara T.O. ; Costa, Fernando Ferreira . (2006) Identification of novel candidate genes for globin regulation in erythroid cells containing large deletions of the human γ -globin gene cluster. *Blood Cells, Molecules & Diseases (Print)*, v. 37, p. 82-90.
 18. Jardim, Denis Leonardo Fontes ; **Cunha, A. F.** ; Duarte, Adriana S ; Santos, Camila Oresco dos ; Saad, Sarah T O ; Costa, Fernando Ferreira . (2004) Expression of SARA2 human gene in erythroid progenitors.. *Journal Of Biochemistry And Molecular Biology*, v. 38, p. 328-333.
 19. Rocha, F. L. ; **Cunha, A. F.** ; Oliveira, M. A. ; Pereira, Gonçalo A G ; Pinheiro, H. ; Reis, Sergio Furtado dos . (2003) Preliminary phylogeographic analysis of the neotropical freshwater turtle *Hydromedusa maximiliani* (Chelidae).. *Journal of Herpetology, Brasil*, v. 37, p. 199-199.
 20. Souza, Franco L ; **Cunha, Anderson F** ; Oliveira, Marcos A ; Pereira, Gonçalo A.G ; Pinheiro, Hildete P ; dos Reis, Sérgio F . (2002) Partitioning of molecular variation at local spatial scales in the vulnerable neotropical freshwater turtle, *Hydromedusa maximiliani* (Testudines, Chelidae): implications for the conservation of aquatic organisms in natural hierarchical systems. *Biological Conservation*, v. 104, n.1, p. 119-126.

Célia Maria de Almeida Soares



Célia Maria de Almeida Soares received undergraduate training at the Universidade de São Paulo. Her graduate training was obtained at the Universidade Federal de Rio de Janeiro, Rio de Janeiro Brazil. Her PhD thesis was on gene expression of the pathogenic protozoan *Trypanosoma cruzi*. She was a post-doctoral student in 1997, with George Deepe at the University of Cincinnati, USA. Célia Soares established her own laboratory at the Universidade Federal de Goiás Federal in Goiânia, in 1991, working with Molecular Biology and Biochemistry of *Paracoccidioides* spp.. Celia is a member of the CNPq Genetics Advisory Committee (AC-GE), and was the Coordinator of CA-Genetics in 2013/14. She serves on the board of

the Sociedade Brasileira de Genética as the first secretary. Celia has the prestigious productivity fellowship of 1A from CNPq.

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1. Education

Year	Title	Institution	Location
1973	BS in Biology	Universidade de São Paulo	São Paulo, SP, Brazil
1984	MS in Biology	Universidade Federal de Goiás	Goiana, GO, Brazil
1989	PhD in Biology	Universidade Federal de Rio de Janeiro	Rio de Janeiro, RJ, Brazil
1997	Post doctorate	University of Cincinnati	Cincinnati, OH, USA

2. Professional experience

Year	Title	Institution
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1979-current	Full Professor	Universidade Federal de Goiás, Goiânia, Goiás, Brazil.
2013-2014	Coordinator of Genetic Committee	Conselho Nacional de Desenvolvimento Científico e Tecnológico CNPq, Brazil
2009-2013	Consultant of Genetic Committee	Conselho Nacional de Desenvolvimento Científico e Tecnológico CNPq, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Parente-Rocha J.A, Parente A.F.A, Baeza L.C., Bonfim S.M.R.P., Hernandez O., McEween J.G., Bailão, A.M., Taborda, C.P., Borges, C.L. & **Soares, C.M.A.** (2015). "Macrophage interaction with *Paracoccidioides brasiliensis* yeast cells modulates fungal metabolism and generates a response to oxidative stress". PLOS ONE 10(9):e137619
2. Parente, A.F.A, Naves, P.E.C., Pigosso, L.L, Casaletti, L., McEween J.G., Parente-Rocha, J.A., **Soares, C.M.A.**(2015). "The response of *Paracoccidioides* spp. to nitrosative stress". Microbes Infect 17, 575-585.
3. Lima P.S., Chung D., Bailão, A.M., Cramer R.A., **Soares, C.M.A.** (2015)."Characterization of the hypoxia response reveals new insights into pathogenesis mechanisms of this important human pathogenic fungus". PLoS Negl Trop Dis 9 (12):e0004282.
4. Bailão, E.F.C., Lima P.S.L., Silva-Bailão M.G., Bailão, A.M., Fernandes, G.R., Kosman, D.J., **Soares, C.M.A** (2015). "*Paracoccidioides* spp. ferrous and ferric iron assimilation pathways". Front Microbiol: 6:821.
5. Lima P de, S., L. Casaletti, A. M. Bailao, A. T. de Vasconcelos, R. Fernandes Gda and **C. M. Soares** (2014). "Transcriptional and proteomic responses to carbon starvation in *Paracoccidioides*." PLoS Negl Trop Dis 8(5): e2855.
6. Silva-Bailao, M. G., E. F. Bailao, B. E. Lechner, G. M. Gauthier, H. Lindner, A. M. Bailao, H. Haas and **C. M. de Almeida Soares** (2014). "Hydroxamate production as a high affinity iron acquisition mechanism in *Paracoccidioides* spp." PLoS One 9(8): e105805.
7. Bailao, E. F., J. A. Parente, L. L. Pigosso, K. P. Castro, F. L. Fonseca, M. G. Silva-Bailao, S. N. Bao, A. M. Bailao, M. L. Rodrigues, O. Hernandez, J. G. McEwen and **C. M. Soares** (2014). "Hemoglobin Uptake by *Paracoccidioides* spp. Is Receptor-Mediated." PLoS Negl Trop Dis 8(5): e2856.
8. Motta MC, Martins AC, de Souza SS, Catta-Preta CM, Silva R, Klein CC, de Almeida LG, de Lima Cunha O, Ciapina LP, Brocchi M, Colabardini AC, de Araujo Lima B, Machado CR, **de Almeida Soares CM**, Probst CM, de Menezes CB, Thompson CE, Bartholomeu DC, Gradia DF, Pavoni DP, Grisard EC, Fantinatti-Garboggini F, Marchini FK, Rodrigues-Luiz GF, Wagner G, Goldman GH, Fietto JL, Elias MC, Goldman MH, Sagot MF, Pereira M, Stoco PH, de Mendonça-Neto RP, Teixeira SM, Maciel TE, de Oliveira Mendes TA, Ürményi TP, de Souza W, Schenkman S, de Vasconcelos AT. (2013) Predicting the Proteins of *Angomonas deanei*, *Strigomonas culicis* and Their Respective Endosymbionts Reveals New Aspects of the Trypanosomatidae Family. Plos One, v. 8, p. e60209.
9. Fraga-Silva, R. A.; Costa-Fraga, F. P.; Murca, T. M.; L.Moraes, P.; Lima, A. M.; Lautner, R. Q.; Castro, C. H.; **Almeida Soares, C.M.**, Borges, Clayton Luiz; Nadu, A. P.; L.Oliveira, M.; Shenoy, V.; Katovich, M. J.; Santos, R. A.; Raizada, M. K.; Ferreira, A. J. . (2013) Angiotensin-Converting Enzyme 2 Activation Improves Endothelial Function. Hypertension (Dallas, Tex. 1979), v. 61, p. 1233-1238.
10. Marinotti, O.; Cerqueira, G.; Gonzaga, L.; Ferro, M. I.; Elgion, L.; Zaha, Arnaldo; Teixeira, Santuza Ribeiro; Wespiser, A.; Silva, A.; Schindwein, A.; Pacheco, A. C.; Silva, A.; Graveley, B.; Walenz, B.; Lima, B.; Ribeiro, C. A.; Nunes-Silva, C. G.; Carvalho, C. R.; **Almeida Soares, C.M.**; Soares, C.M.A.; Menezes, C. B.; Matioli, C.; Daniel, C.; Araujo, D. A.; Oliveira, D.; Golenbock, D.; , Grisard, Edmundo Carlos; Fatinatti-Garboggini, F.; Carvalho, F.; Barcellos, F.; Prosdociami, F.; May, G.; Azevedo Junior, G.; Guimaraes, G.; Goldman G.H.; Padilha, I.; Batista, J.; Ferro, Jesus Aparecido; Ribeiro, J.; Fietto, J.; Dabbas, K.; Cerdeira, L.; Agnes-Lima, L.; Brocchi, Marcelo; Teixeira Mm Maia, M.; Goldman, M. H.; Schneider, M. P.; Felipe M.S.S.;

- Hungria, Mariangela; Nicolas, M.; Pereira, Maristela; Montes, A. M.; Cantao, M.; Vincentz, M.; Rafael, M.; Silverman, N.; Stoco, P.; Souza, R.; Vicentini, R.; Gazzinelli, R.; Neves, R.; Silva, R.; Astolfi-Filho, S.; Maciel, T.; Uérményil, T. P.; Tadei, W. P.; Camargo, E.; Vasconcelos, Ana Tereza; Ribeiro. (2013) The Genome of *Anopheles darlingi*, the main neotropical malaria vector. *Nucleic Acids Research*, p. 1-14.
11. Weber, S. S.; Parente Afa; Borges, C. L.; Parente, J. A.; Bailão, Alexandre Melo; **Almeida Soares, C.M.**, (2012) Analysis of the secretomes of *Paracoccidioides mycelia* and yeast cells. *Plos One*, v. 7, p. e52470.
 12. Rezende, T. C., C. L. Borges, A. D. Magalhaes, M. V. de Sousa, C. A. Ricart, A. M. Bailao and **C. M. A. Soares** (2011). "A quantitative view of the morphological phases of *Paracoccidioides brasiliensis* using proteomics." *J Proteomics* **75**(2): 572-587.
 13. Silva, M. G., A. Schrank, E. F. L. C. Bailao, A. M. Bailao, C. L. Borges, C. C. Staats, J. A. Parente, M. Pereira, S. M. Salem-Izacc, M. J. Mendes Giannini, R. M. Zancope-Oliveira, L. K. Rosa e Silva, J. D. Nosanchuk, M. Henning Vainstein and **C. M. A. Soares** (2011). "The homeostasis of iron, copper and zinc in *Paracoccidioides brasiliensis*, *Cryptococcus neoformans* var. *grubi*, and *Cryptococcus gatii*: a comparative analysis." *Front Microbiol* 2: 1-12.
 14. Desjardins CA; Champion, MD; Holder, JW; Muszewska, A; Goldberg, J. Bailão, Alexandre Melo; Brigido, M. M.; Ferreira MÊS; Garcia, AM; Grynberg, M; Heiman, D; Henn, M; Kodira, C; León-Narváez, H; Longo, LGV; Ma, LJ; Malavazi, I; Matsuo, Al; Morais, FV; Pereira, Maristela; Rodriguez-Brito. S; Sakhikumar, S; Salem-Izacc, Silvia M; Sykes, S.; Teixeira, MM; Vallejo, MC; Walter, Maria Emília M T; Young, S; Yandava, C; Zeng, Q; Zucker, J; Felipe, M. S. S.; Goldman, GH; Haas, BJ; Mcewen, JG; Nino-Veja, G; Puccia, Rosana; San-Blas, G; **Almeida Soares, C.M.**, Birren, BW; Cuomo, CA. (2011) Comparative genomic analysis of human fungal pathogens causing paracoccidioidomycosis. *PLOS Genetics*, v. 7, p. e1002345
 15. Nogueira, S. V.; Fonseca, F. L.; Rodrigues, M. L.; Mundodi, V.; Abi-Chacra, E. A.; Winters, M. S.; Alderete, J. F.; **Almeida Soares, C.M.**. (2010) *Paracoccidioides brasiliensis* Enolase Is a Surface Protein That Binds Plasminogen and Mediates Interaction of Yeast Forms with Host Cells. *Infection and Immunity* (Print), v. 78, p. 4040-4050.
 16. Donofrio FC; Calil ACA; Miranda ET; Almeida AMF; Bernard, G.; Soares CP; Nogueira SV; **Almeida Soares, C.M.**,; Giannini, M. J. S. M. . (2009) Enolase from *Paracoccidioides brasiliensis*: isolation and identification as a fibronectin-binding protein. *Journal of Medical Microbiology*, v. 58, p. 706-713.
 17. Carrero LL; Nino Vega G; Teixeira MM; Carvalho, Maria Jose A; **Almeida Soares, C.M.**, Soares, C.M.A.; Pereira, Maristela; Jesuino, Rosália Santos Amorim; McEwen JG; Mendonza L; Taylor JW; Felipe, Maria Sueli Soares; San Blas G. (2008) New *Paracoccidioides brasiliensis* isolate reveals unexpected genomic variability in this human pathogen. *Fungal Genetics and Biology*, v. 45, p. 605-612.
 18. Bastos, K. P., A. M. Bailao, C. L. Borges, F. P. Faria, M. S. Felipe, M. G. Silva, W. S. Martins, R. B. Fiuza, M. Pereira, and **C. M. Soares** (2007). "The transcriptome analysis of early morphogenesis in *Paracoccidioides brasiliensis* mycelium reveals novel and induced genes potentially associated to the dimorphic process." *BMC Microbiol* **7**: 29.
 19. Pereira, Luiz Augusto; Bao, Sonia Nair; Barbosa, Mônica Santiago; Silva, J L Monteiro Da; Felipe, Maria Sueli Soares; Santana Jm; Giannini, M. J. S. M.; **Almeida Soares, C.M.** (2007). Analysis of the *Paracoccidioides brasiliensis* triosephosphate isomerase suggests the potential for adhesin function. *FEMS Yeast Research*, v. 7, p. 1381-1388.
 20. Bailão, Alexandre Melo; Schrank, A.; Borges, C. L.; Dutra V; Madlun, E. E. W. I. M.; Mendes Giannini Mj; Felipe, Maria Sueli Soares; Martins Ws; Pereira, Maristela; **Soares, C.M.** (2006) Differential gene expression by *Paracoccidioides brasiliensis* in host interaction conditions: Representational difference analysis identifies candidate genes associated with fungal pathogenesis.. *Microbes and Infection*, Inglaterra, v. 8, p. 2686-2697, 2006.

Chengshu Wang



Dr. Chengshu Wang received undergraduate and graduate training at the Anhui Agricultural University, China. His Ph.D. thesis was on the molecular ecology study of insect pathogenic fungus *Beauveria bassiana*, supervised by Prof. Jilen Li. From 2001 to 2006, he was a post-doctoral fellow with Dr. Tariq Butt at the University of Wales Swansea, UK, and Prof. Raymond J. St Leger at the University of Maryland, USA. His research is mainly focused on genomics, molecular genetics, and insect-fungus interactions. Dr. Wang established his own laboratory at the Shanghai Institutes of Biological Sciences, Chinese Academy of Sciences in 2007.

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Súmula Curricular

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Publication: 72

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1. Education

Year	Title	Institution	
2004/06	Research associate (postdoc)	University of Maryland	College Park, MD, USA
2001/03	Research associate (postdoc)	University of Wales	Swansea, Wales, UK
2001	PhD	China Agricultural University	Beijing, China
1996	MSc	Anhui Agricultural University	Hefei, Anhui, China
1993	BSc	Anhui Agricultural University	Hefei, Anhui, China

2. Professional experience

Year	Title	Institution	Location
1/2007- present	Professor, PI	Institute of Plant Physiology and Ecology, Shanghai Institutes for Biological Sciences	Shanghai, China

3. List of the most relevant publication (up to 20 papers)

1. **Wang CS**, Wang SB. (2016). Insect pathogenic fungi: genomics, molecular interactions, and genetic improvements. *Annual Review of Entomology*.
2. Gao Q, Lu YZ, Yao HY, Xu YJ, Huang W, **Wang CS**. (2016). Phospholipid homeostasis maintains cell polarity, development and virulence in *Metarhizium robertsii*. *Environmental Microbiology*.
3. Shang YF, Xiao GH, Zheng P, Cen K, Zhan S, **Wang CS**. (2016). Divergent and convergent evolution of fungal pathogenicity. *Genome Biology and Evolution*, 8(5): 1374-1387.
4. Wang JB, St. Leger RJ*, **Wang CS**. (2016). Advances in genomics of entomopathogenic fungi. *Advances in Genetics*, 94: 67-105.
5. Lu YZ, Xia YL, Luo FF, Dong CH, **Wang CS**. (2016). Functional convergence and divergence of mating-type genes fulfilling in *Cordyceps militaris*. *Fungal Genetics and Biology*, 88: 35-43.
6. Feng P, Shang YF, Cen K, **Wang CS**. (2015). Fungal biosynthesis of the bibenzoquinone oosporein to evade insect immunity. *Proceedings of the National Academy of Sciences USA*, 112(36): 11365-11370.
7. Shang YF, Feng P, **Wang CS**. (2015). Fungi that infect insects: altering host behavior and beyond. *PLoS Pathogens*, 11(8): e1005037.
8. Huang W, Shang YF, Chen PL, Cen K, **Wang CS**. (2015). Basic leucine zipper (bZIP) domain transcription factor MBZ1 regulates cell wall integrity, spore adherence, and virulence in *Metarhizium robertsii*. *Journal of Biological Chemistry*, 290(13): 8218-8231.
9. Huang W, Shang YF, Chen PL, Gao Q, **Wang CS**. (2015). MrpacC regulates sporulation, insect cuticle penetration and immune evasion in *Metarhizium robertsii*. *Environmental Microbiology*, 17(4): 994-1008.
10. Hu X, Xiao GH, Zheng P, Shang YF, Su Y, Zhang XY, Liu XZ, Zhan S, St. Leger RJ, **Wang CS**. (2014). Trajectory and genomic determinants of fungal-pathogen speciation and host adaptation. *Proceedings of the National Academy of Sciences USA*, 111(47): 16796-16801.
11. Li L, Hu X, Xia YL, Xiao GH, Zheng P, **Wang CS**. (2014). Linkage of oxidative stress and mitochondrial dysfunctions to spontaneous culture degeneration in *Aspergillus nidulans*. *Molecular & Cellular Proteomics*, 13(2): 449-461.
12. Duan ZB, Chen YX, Huang W, Shang YF, Chen PL, **Wang CS**. (2013). Linkage of autophagy to fungal development, lipid storage and virulence in *Metarhizium robertsii*. *Autophagy*, 9(4): 538-549.
13. Gao Q, Shang YF, Huang W, **Wang CS**. 2013. Glycerol-3-phosphate acyltransferase contributes to triacylglycerol biosynthesis, lipid droplet formation and host invasion in *Metarhizium robertsii*. *Applied and Environmental Microbiology*, 79(24): 7646-7653.
14. Wang B, Kang QJ, Lu YZ, Bai LQ, **Wang CS**. (2012). Unveiling the biosynthetic puzzle of destruxins in *Metarhizium* species. *Proceedings of the National Academy of Sciences USA*, 109(4): 1287-1292.
15. Zheng P, Xia YL, Xiao GH, Xiong CH, Zhang SW, Zheng HJ, Huang Y, Zhou Y, Wang SY, Zhao G-P, Liu XZ, St. Leger RJ, **Wang CS**. (2011). Genome sequence of the insect pathogenic fungus *Cordyceps militaris*, a valued traditional Chinese medicine. *Genome Biology*, 12(11): R116. (Cover story)
16. Gao Q, Jin K, Ying S-H, Zhang YJ, Xiao GH, Shang YF, Duan ZB, Hu X, Xie XQ, Zhou G, Peng GX, Luo ZB, Huang W, Wang B, Fang WG, Wang SB, Zhong Y, Ma L-J, St. Leger RJ, Zhao G-P, Pei Y, Feng M-G*, Xia YX*, **Wang CS**. (2011). Genome sequencing and comparative transcriptomics of the model entomopathogenic fungi *Metarhizium anisopliae* and *M. acridum*. *PLoS Genetics*, 7(1): e1001264. (Cover story, highlighted by *Nature Biotechnology* and Featured by Faculty 1000.
17. Duan ZB, Shang YF, Gao Q, Zheng P, **Wang CS**. (2009). A phosphoketolase Mpk1 of bacterial origin is adaptively required for full virulence in the insect-pathogenic fungus *Metarhizium anisopliae*. *Environmental Microbiology*, 11(9): 2351-2360.
18. **Wang CS**, St Leger RJ. (2007). A scorpion neurotoxin increases the potency of a fungal insecticide. *Nature Biotechnology* 25(12):1455-1456. (Commented in the same issue of News and Views entitled: Fungal bioinsecticide with a sting. *NBT*, 2007. 25: 1367-1368).

19. **Wang CS, St Leger RJ. (2007).** The *Metarhizium anisopliae* perilipin homolog MPL1 regulates lipid metabolism, appressorial turgor pressure and virulence. *The Journal of Biological Chemistry* 282(29): 21110-21115.
20. **Wang CS, St Leger RJ. (2006).** A collagenous protective coat enables *Metarhizium anisopliae* to evade insect immune responses. *Proceedings of the National Academy of Sciences USA* 103(17): 6647-6652.

Claudina Rodrigues-Pousada



Claudina Rodrigues-Pousada received her PhD degree at the University of Paris VII and at the Institute Biologie Physico-Chimique (Paris). Claudina introduced Molecular Biology to study gene expression regulation in Portugal. From 1985 to 2001, she was a Full Professor of the Instituto Ciências Biomédicas Abel Salazar (Porto). She was head of the laboratory of Molecular Genetics at the Gulbenkian Institute of Science for almost 30 years. In 2000, she moved to Instituto De Tecnologia Química E Biológica (ITQB), where she is Full Professor and has launched the laboratory Genomics and Stress. Her main field of research is Gene

regulation in eukaryotic cells under stress. In 1994, she was elected EMBO member (European Molecular Biology Organization) and in 2011 was elected fellow of the American Association for the Advancement of Science.

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Súmula Curricular

Publication: 110

Total Citations: 3806

H-index: 40 (Web of Science)

1. Education

Year	Title	Institution	Location
1983	Agregação -Biochemistry	Universidade do Porto	Porto, Portugal
1979	D.Sc-Biochemistry	Paris VII	Paris, France
1976	Doctorate	Paris VII	Paris, France
1968	BSc - Pharmacy	Universidade do Porto	Porto, Portugal

2. Professional experience

Year	Title	Institution	Location
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1998-present	Full Professor	Instituto De Tecnologia Química E Biológica	Lisbon, Portugal
1985-2002	Professor - Microbiology	Universidade do Porto	Porto, Portugal
1987-1995	Full Professor	Universidade de Lisboa	Lisboa, Portugal
1988	Visiting Professor	Weizman Institute of Science,	Rehovot, Israel

3. List of the most relevant publication (up to 20 papers)

1. **Rodrigues-Pousada, Claudina** (2016) The birth of enthusiasm and passion for science. *FEMS Yeast Res.* 2016 Aug;16(5). pii: fow057. doi: 10.1093/femsyr/fow057. Epub 2016 Jul 2.
2. Ferreira RT, Menezes RA, **Rodrigues-Pousada C.** (2015) E4-Ubiquitin ligase Ufd2 stabilizes Yap8 and modulates arsenic stress responses independent of the U-box motif. *Biol Open.* 2015 Aug 14;4(9):1122-31.
3. Caetano SM, Menezes R, Amaral C, **Rodrigues-Pousada C**, Pimentel C. (2015) Repression of the Low Affinity Iron Transporter Gene FET4: a novel mechanism against cadmium toxicity orchestrated by yap1 via rox1. *J Biol Chem.* 2015 Jul 24;290(30):18584-95.
4. Pimentel C, Caetano SM, Menezes R, Figueira I, Santos CN, Ferreira RB, Santos MA, **Rodrigues-Pousada C.** (2014) Yap1 mediates tolerance to cobalt toxicity in the yeast *Saccharomyces cerevisiae*. *Biochim Biophys Acta.* 2014 Jan 29. pii: S0304-4165(14)00043-9.
5. Amaral C, Pimentel, C. Matos R.G., Arraiano CM, Matzapetakis, M., **and Rodrigues-Pousada C** (2013) Two residues in the basic region of the yeast transcription factor Yap8 are crucial for its DNA-binding specificity, *PLoS One* Dec 16;8(12):e83328.
6. Garcia-Oliveira AL, Benito C, Prieto P, de Andrade Menezes R, **Rodrigues-Pousada C**, Guedes-Pinto H, Martins-Lopes P. (2013) Molecular characterization of TaSTOP1 homoeologues and their response to aluminium and proton (H⁺) toxicity in bread wheat (*Triticum aestivum* L.). *BMC Plant Biol.* 2013 Sep 13;13(1):134.
7. Bleoanca I, Silva AR, Pimentel C, **Rodrigues-Pousada C**, Menezes Rde A. (2013) Relationship between ethanol and oxidative stress in laboratory and brewing yeast strains. *J Biosci Bioeng.* 2013 Dec;116(6):697-705. doi: 10.1016/j.jbiosc.2013.05.037. Epub 2013 Jul 6.
8. Varela-Raposo A, Pimentel C, Morais-Silva F, Rezende A, Ruiz JC, **Rodrigues-Pousada C.** (2013) Role of NorR-like transcriptional regulators under nitrosative stress of the δ -proteobacterium, *Desulfovibrio gigas*. *Biochem Biophys Res Commun.* 2013 Feb 15;431(3):590-6.
9. Batista-Nascimento L, Toledano MB, Thiele DJ, **Rodrigues-Pousada C.** (2013) Yeast protective response to arsenate involves the repression of the high affinity iron uptake system. *Biochim Biophys Acta. Molecular and Cellular Research* 2013 May;1833(5):997-1005.
10. Ferreira RT, Courelas Silva AR, Pimentel C, Batista-Nascimento L, **Rodrigues-Pousada C**, Menezes RA (2012) Arsenic stress elicits cytosolic Ca²⁺-bursts and Crz1 activation in *Saccharomyces cerevisiae*. *Microbiology (ASM).* 2012 Jun 28. [Epub ahead of print] 22745270
11. Pimentel C, Batista-Nascimento L, **Rodrigues-Pousada C**, Menezes RA. (2012) Oxidative Stress in Alzheimer's and Parkinson's Diseases: Insights from the Yeast *Saccharomyces cerevisiae*. *Oxid Med Cell Longev.* 2012;2012:132146.
12. Batista-Nascimento L., Daniel W. Neef, Phillip C. C. Liu, **Claudina Rodrigues-Pousada** and Thiele DJ (2011) Deciphering Human Heat Shock Transcription Factor 1, Regulation via Post-Translational Modification in Yeast, *PLOS ONE*, Volume 6, Issue 1 e15976
13. **Rodrigues-Pousada C.**, Menezes RA and Pimentel, C., (2010) Yeast activator proteins and their role in stress response *YEAST*, 27(5):245-58.
14. Pereira J., Pimentel, C., Amaral, C., Menezes, R.A. and **Rodrigues-Pousada, C.** (2009) Yap4 PKA- and GSK3-dependent phosphorylation affects its stability but not its nuclear localization, *Yeast.* 2009 Dec;26(12):641-53.
15. Menezes RA, Amaral C, Batista-Nascimento L, Santos C, Ferreira RB, Devaux F, Eleutherio EC, **Rodrigues-Pousada C.** (2008) Contribution of Yap1 towards *Saccharomyces cerevisiae* adaptation to arsenic-mediated oxidative stress. *Biochem J.* 2008 Sep1; 414(2):301-311.

16. Azevedo, Dulce, Liliana Nascimento, Jean Labarre, Michel B Toledano, **Claudina Rodrigues-Pousada** (2007) The *S. cerevisiae* Yap1 and Yap2 transcription factors share a common cadmium-sensing domain FEBS Lett. Jan 23;581(2):187-95. (citações 1)
17. **Rodrigues-Pousada, Claudina**, Nevitt, T. and Menezes, R. (2005). The yeast stress response, role of the YAP family of b-ZIP transcription factors. FEBS J 272, 2639-2647 (citações 7)
18. Nevitt, T, Pereira, J., **Rodrigues-Pousada, C**, (2004) YAP4 gene expression is induced in response to several forms of stress in *Saccharomyces cerevisiae* Yeast, 21 1365-1374
19. **Claudina Rodrigues-Pousada**, Tracy Nevitt, Regina Menezes, Dulce Azevedo, Jorge Pereira, Catarina Amaral (minireview) (2004) Yeast Activator Proteins and Stress Response: an overview, FEBS Letters 567,80-85
20. Regina Menezes, Catarina Amaral, Agnès Delaunay, Michel Toledano and **Claudina Rodrigues-Pousada** (2004) Yap8p activation in *Saccharomyces cerevisiae* under arsenic conditions, FEBS Letters 2004 May 21;566(1-3):141-6.

Deborah Bell-Pedersen



Dr. Deborah Bell-Pedersen is a Professor and Associate Department Head in the Biology Department, and a member of the Interdisciplinary Program in Genetics, and the Center for Research on Biological Clocks at Texas A&M University. She earned her PhD from SUNY Albany, and completed postdoctoral studies at Dartmouth Medical School. Her research focuses on understanding the molecular mechanisms for how the circadian clock functions in organisms to regulate daily rhythms in behavior, physiology, and biochemistry. She has published more than 70 articles, reviews, and book chapters, and funding from the National Institutes of Health provides support for her work. Dr. Bell-Pedersen has held numerous leadership roles in her field, including serving on the Board of Directors for the

Society for Research on Biological Rhythms, and as Chair of the Neurospora Policy Committee. She is a fellow of the American Academy of Microbiology.

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Súmula Curricular

ResearcherID: <http://www.researcherid.com/rid/H-8012-2016>

Publication: 93

Total Citations: 4635

H-index: 32

1. Education

Year	Title	Institution	Location
1991	Postdoctoral Fellow	Dartmouth Medical School	Hanover, NH, USA
1991	PhD Molecular Biology	SUNY Albany	Albany, NY, USA
1987	MS Biology	SUNY Albany	Albany, NY, USA
1982	BS Biology	SUNY Albany	Albany, NY, USA

2. Professional experience

Year	Title	Institution	Location
2014-present	Associate Head of Operations Biol.	Texas A&M University	College Station, TX, USA
2007-present	Professor Biology	Texas A&M University	College Station, TX, USA
2003-2007	Associate Professor Biology	Texas A&M University	College Station, TX, USA
1997-2003	Assistant Professor Biology	Texas A&M University	College Station, TX, USA

3. List of the most relevant publication (up to 20 papers)

1. Nsa I, Karunarathna, N, Liu, X, Huang, H, Boettger, B, and Bell-Pedersen, D. (2015) A novel cryptochrome-dependent oscillator in *Neurospora crassa*. *Genetics* 199: 233-245
2. Hurley JM, Dasgupta A, Emerson JM, Zhou X, Ringelberg CS, Knabe N, Lipzen A, Lindquist E, Daum C, Barry K, Grigoriev IV, Smith K, Galagan J, Bell-Pedersen D, Freitag M, Cheng C, Loros J, Dunlap JC (2014) Analysis of clock regulated genes in *Neurospora* reveals widespread post-transcriptional control of metabolic potential. *PNAS* 111: 16995-17002
3. Wu, C, Yang, F, Smith KM, Petersen M, Dekhang R, Zhang Y, Zucker, J, Bredeweg, EL, Mallappa, C, Zhou X, Townsend, JP, Galagan, JE, Freitag, M, Dunlap, JC, Bell-Pedersen, D, Sachs, MS. (2014) Genome-wide characterization of light-regulated genes in *Neurospora crassa*. *G3* 4: 1731-1745.
4. Goldsmith, CS and Bell-Pedersen, D. (2013) Diverse roles for MAPK signaling in circadian clocks. *Adv. Genet.* 84: 1-39 PMID 24262095
5. Lamb, TM, and Bell-Pedersen, D. (2013). Regulation of gene expression in *Neurospora crassa* with a copper responsive promoter. *G3.* 3: 2273-2280 PMCID: PMC3852388
6. Bennett, LD, Beremand, P, Thomas TL, and Bell-Pedersen, D (2013) Circadian activation of the mitogen-activated protein kinase MAK-1 facilitates rhythms in clock-controlled genes in *Neurospora crassa*. *Euk Cell* 12:59-69. PMCID: PMC3535850
7. Lamb, TM, Finch, KE, and Bell-Pedersen, D. (2012) The *Neurospora crassa* OS MAPK pathway-activated transcription factor ASL-1 functions to generate circadian rhythms in pathway responsive clock-controlled genes. *Fungal Genetics and Biology* 49(2):180-18.
8. Lakin-Thomas PL, Bell-Pedersen D, Brody S. (2011) The genetics of circadian rhythms in *Neurospora*. *Adv Genet.* 2011;74:55-103.
9. Lamb TM, Goldsmith CS, Bennett L, Finch KE, Bell-Pedersen D. (2011) Direct Transcriptional Control of a p38 MAPK Pathway by the Circadian Clock in *Neurospora crassa*. *PLoS One.* 6(11):e27149.
10. Smith, K.M., Sancar, G., Dekhang, R., Sullivan, C.M., Li, S., Bredeweg, E.L., Priest, H., McCormick, R.F., Tag, A., Thomas, T., Sancar, C., Carrington, J.C., Bell-Pedersen, D., Brunner, M., Stajich, J.E., Freitag, M. (2010) Transcription factors in light and circadian clock signaling networks revealed by genomewide mapping of direct targets for *Neurospora* white collar complex. *Euk Cell* 9: 1549-1556.
11. dePaula, R.M., Lamb, T.M., Bennett, L., and Bell-Pedersen, D. (2008) A connection between MAPK pathways and circadian clocks. *Cell Cycle* 7:2630-4.
12. Vitalini, M., dePaula, R., Goldsmith, C., Jones, C., Borkovich, K., and Bell-Pedersen, D. (2007) Circadian rhythmicity mediated by temporal regulation of the activity of a p38 MAPK. *Proc. Natl. Acad. Sci USA* 104(46):18223-8
13. Bell-Pedersen, D, Cassone, VM, Earnest, DJ, Golden SS, Hardin, PE, Thomas TL, Zoran, MJ (2005) Circadian rhythms from multiple oscillators: lessons from diverse organisms. *Nat Rev Genet.* 6:544-556.
14. Borkovich, KA, Alex, LA, Yarden, O., Freitag, M., Turner, G.E., Read, N.D., Seiler, S., Bell-Pedersen, D, Paietta, J, Plesofsky, N, Plamann, M., Goodrich-Tanrikulu, M., Schulte, U., Mannhaupt, G., Nargang, F.E., Radford, A., Selitrennikoff, C, Galagan, J.E., Dunlap, J.C., Loros, J.J., Catcheside, D., Inoue, H., Aramayo, R., Polymenis, M., Selker, E.U., Sachs, M.S., Marzluf, G.A., Paulsen, I., Davis, R., Ebbole, D.J., Zelter, A., Kalkman, E., O'Rourke, R., Bowring, F., Yeadon, J., Ishii, C., Suzuki, K., Sakai, W., Pratt, R. 2004 Lessons from the genome sequence of

- Neurospora crassa*: Tracing the path from genomic blueprint to multicellular organism. MMBR 68, 1-108.
15. Vitalini, M., Morgan, L., March, I.J., and Bell-Pedersen, D. (2004) A genetic selection for circadian output pathway (cop) mutations in *Neurospora crassa*. Genetics 167: 119-29.
 16. Correa, A. Lewis, Z.A, Greene, A.V., March I.J., Gomer, R. and Bell-Pedersen, D. (2003) Microarray profiling reveals multiple oscillators regulate circadian gene expression in *Neurospora*. Proc. Natl. Acad. Sci. USA. 100: 13597-602.
 17. Galagan, J., Calvo, S.E., Borkovich, K., Selker, E., Read, N., FitzHugh W., Ma, L-M., Smirnov S., Purcell S., Rehman B, Elkins,T. Engels,R., Wang, S., Nielsen, C.B., Roy, A., Ianakiev, P., Davis, R., Nelson, MA, Werner-Washburne, M., Mewes, W., Kinsey, J., Braun, E., Zelter, A., Shulte U., Kothe, G., Jedd, G., Bell-Pedersen, D., Staben, C., Marcotte, E., Greenberg, D., Selitrennikoff, C.P., Foley, K., Naylor, J., Stange-Thomann, N., Barrett, R., Butler, J., Gnerre, S., Jaffe, D., Qui, D., Kamvysselis, M., Kamal, M., Metzenberg, R., Perkins, D., Dunlap, J., Glass, L., Yarden, O., Plamann, M., Seiler, S., Radford, A., Orbach, M., Berglund, J.A., Voelker, R., Mannhaupt, G., Natvig, D., Aramayo, R., Ebbole, D., Freitag, M., Paulsen, I., Sachs, M., Lander, E.S., Nusbaum, C., and Birren, B. (2003) The genome sequence of the filamentous fungus *Neurospora crassa* Nature 422: 859-869.
 18. Morgan, L., Greene, A.V. and Bell-Pedersen, D. (2003) Circadian and light-induced expression of luciferase in *Neurospora crassa*. Fungal Genetics and Biology. 38: 327-332.
 19. Greene, A. V., Keller, N., Haas, H., and Bell-Pedersen, D. (2003) A circadian oscillator in *Aspergillus spp.* regulates daily development and gene expression Euk. Cell 2: 231-237.
 20. Shinohara, M.L., Correa, A., Bell-Pedersen, D., Dunlap, J.C., and Loros, J.J. (2002) *Neurospora clock-controlled gene-9 (ccg-9)* encodes trehalose synthase: Circadian regulation of stress responses and development. Euk Cell 1: 33-43.

Diego Bonatto



Dr. Diego Bonatto received undergraduate and graduate training at the Universidade Federal de Rio Grande do Sul, Brazil. His Ph.D. thesis was on identification of new DNA repair genes in yeasts, plants, and protozoans, supervised by João Antonio Pêgas Henriques. His research is focused on brewing yeast genetics and biochemistry by using Systems Biology and Molecular Biology approaches. He also works on transcriptome data analyses from microarrays and RNA-seq from different organisms and

biochemical processes, including aging, senescence, and oxidative stress. Dr. Bonatto established his laboratory at the Universidade Federal de Rio Grande do Sul in 2010. He has level 1D Productivity from CNPq.

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Súmula Curricular

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 Publication: 72
 Total Citations: 716
 H-index: 13
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1. EDUCATION

Year	Title	Institution	Location
2005	Ph.D. in Molecular and Cellular	Universidade Federal de Rio	Porto Alegre, RS, Brazil

	Biology	Grande do Sul	
2000	M.Sc. in Molecular and Cellular Biology	Universidade Federal de Rio Grande do Sul	Porto Alegre, RS, Brazil
1998	B.Sc. in Biological Sciences	Universidade Federal de Rio Grande do Sul	Porto Alegre, RS, Brazil

2. Professional experience

Year	Title	Institution	Location
2010-present	Associated Professor	Universidade Federal of Rio Grande do Sul	Porto Alegre, RS, Brazil
2005-2010	Professor Titular	Universidade de Caxias do Sul	Caxias do Sul, RS, Brazil

3. List of the most relevant publication (up to 20 papers)

- Paludo GP, Lorenzatto KR, **Bonatto D**, Ferreira HB. (2015) Systems biology approach reveals possible evolutionarily conserved moonlighting functions for enolase. *Comput Biol Chem.*58:1-8.
- Feltes BC, **Bonatto D**. (2015) Overview of xeroderma pigmentosum proteins architecture, mutations and post-translational modifications. *Mutat Res Rev Mutat Res.* 763:306-20.
- de Faria Poloni J, **Bonatto D**. (2015) Systems Chemo-Biology and Transcriptomic Meta-Analysis Reveal the Molecular Roles of Bioactive Lipids in Cardiomyocyte Differentiation. *J Cell Biochem.* 116(9):2018-31
- Feltes BC, de Faria Poloni J, **Bonatto D**. (2015) Development and aging: two opposite but complementary phenomena. *Interdiscip Top Gerontol.* 40:74-84.
- Feltes BC, de Faria Poloni J, Nunes IJ, **Bonatto D**. (2014) Fetal alcohol syndrome, chemobiology and OMICS: ethanol effects on vitamin metabolism during neurodevelopment as measured by systems biology analysis. *OMICS.* 18(6):344-63.
- Munari FM, Revers LF, Cardone JM, Immich BF, Moura DJ, Guecheva TN, **Bonatto D**, Laurino JP, Saffi J, Brendel M, Henriques JA. (2014) Sak1 kinase interacts with Pso2 nuclease in response to DNA damage induced by interstrand crosslink-inducing agents in *Saccharomyces cerevisiae*. *J Photochem Photobiol B.* 130:241-53.
- Calloni R, Viegas GS, Türck P, **Bonatto D**, Pegas Henriques JA. (2014) Mesenchymal stromal cells from unconventional model organisms. *Cytotherapy.* 16(1):3-16.
- Munari FM, Guecheva TN, **Bonatto D**, Henriques JA. (2013) New features on Pso2 protein family in DNA interstrand cross-link repair and in the maintenance of genomic integrity in *Saccharomyces cerevisiae*. *Fungal Genet Biol.* 60:122-32.
- Brown NA, de Castro PA, de Castro Pimentel Figueiredo B, Savoldi M, Buckeridge MS, Lopes ML, de Lima Paullilo SC, Borges EP, Amorim HV, Goldman MH, **Bonatto D**, Malavazi I, Goldman GH. (2013) Transcriptional profiling of Brazilian *Saccharomyces cerevisiae* strains selected for semi-continuous fermentation of sugarcane must. *FEMS Yeast Res.* 13(3):277-90.
- Calloni R, Cordero EA, Henriques JA, **Bonatto D**. (2013) Reviewing and updating the major molecular markers for stem cells. *Stem Cells Dev.* 22(9):1455-76.
- de Castro PA, Savoldi M, **Bonatto D**, Malavazi I, Goldman MH, Berretta AA, Goldman GH. (2012) Transcriptional profiling of *Saccharomyces cerevisiae* exposed to propolis. *BMC Complement Altern Med.* 24;12:194.
- Matuo R, Sousa FG, Soares DG, **Bonatto D**, Saffi J, Escargueil AE, Larsen AK, Henriques JA. (2012) *Saccharomyces cerevisiae* as a model system to study the response to anticancer agents. *Cancer Chemother Pharmacol.* 70(4):491-502.
- Riger CJ, Fernandes PN, Vilela LF, Mielniczki-Pereira AA, **Bonatto D**, Henriques JA, Eleutherio EC. (2011) Evaluation of heavy metal toxicity in eukaryotes using a simple functional assay. *Metallomics.* 3(12):1355-61.
- Mielniczki-Pereira AA, Hahn AB, **Bonatto D**, Riger CJ, Eleutherio EC, Henriques JA. (2011) New insights into the Ca²⁺-ATPases that contribute to cadmium tolerance in yeast. *Toxicol Lett.* 30;207(2):104-11.
- de Castro PA, Savoldi M, **Bonatto D**, Barros MH, Goldman MH, Berretta AA, Goldman GH. (2011) Molecular characterization of propolis-induced cell death in *Saccharomyces cerevisiae*. *Eukaryot Cell.*10(3):398-411.

16. de Oliveira IM, Zanotto-Filho A, Moreira JC, **Bonatto D**, Henriques JA. (2010) The role of two putative nitroreductases, Frm2p and Hbn1p, in the oxidative stress response in *Saccharomyces cerevisiae*. *Yeast*. Feb;27(2):89-102.
17. Barea F, **Bonatto D**. (2009) Aging defined by a chronologic-replicative protein network in *Saccharomyces cerevisiae*: an interactome analysis. *Mech Ageing Dev*. 130(7):444-60.
18. Poletto NP, Rosado JO, **Bonatto D**. (2009) Evaluation of cytotoxic and cytostatic effects in *Saccharomyces cerevisiae* by poissoner quantitative drop test. *Basic Clin Pharmacol Toxicol*. 104(1):71-5.
19. Barea F, Tessaro S, **Bonatto D**. (2008) In silico analyses of a new group of fungal and plant RecQ4-homologous proteins. *Comput Biol Chem*. 32(5):349-58.
20. Dani C, **Bonatto D**, Salvador M, Pereira MD, Henriques JA, Eleutherio E. (2008) Antioxidant protection of resveratrol and catechin in *Saccharomyces cerevisiae*. *J Agric Food Chem*. 11;56(11):4268-72.

Drauzio E.N. Rangel



Dr. Drauzio Eduardo Naretto Rangel graduated with a B.Sc. in Biology from the Universidade do São Francisco in Bragança Paulista (1983). He then worked for three years at UNICAMP on fungi for biological control of *Triatoma infestans* and *Panstrongylus megistus*, insect vectors of *Trypanosoma cruzi*, the protozoan that causes Chagas disease in humans. After a break from the field, he received his MSc. in microbiology from UNESP Jaboticabal (2001). His thesis involved studies on the

fungi *Verticillium lecanii* and *Aphanocladium album* as control agents for the rubber-tree-pest insect *Leptopharsa heveae*. Rangel then joined Donald Roberts in the Department of Biology at Utah State University as a visiting scholar. In 2002, Rangel received a CNPq fellowship to do his PhD, with his research focusing on the phenotypic variations in tolerance to UV-B radiation and heat in the entomopathogenic fungus *Metarhizium anisopliae*. After finishing his PhD at Utah State University in 2006, Drauzio was hired by the Universidade de Vale do Paraiba as a researcher and professor in 2007. His research includes microbial control of insects; tolerance of fungi to UV-B radiation and heat; Soil microbiology, environmental microbiology, Biodiversity of fungi. He has hosted several international scholars. In 2010, Rangel organized the First Brazilian Symposium about the Effects of Increased UV Radiation on Agriculture, which brought 14 Brazilian and International researchers to Univap. In 2012 he organized the Workshop “Sex, Light, and Carotenes: The Development of Fungi” a week long course on fungal photobiology by Dr. Luis M. Corrochano from the University of Seville, Spain. In 2014 he created and organized the most successful symposium of his career, the International Symposium on Fungal Stress where 35 speakers from 10 different countries. Drauzio is currently a visiting professor at the Universidade Federal de Goiás.

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Súmula Curricular

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Publication: 42

Total Citations: 863

H-index: 18

CNPq Lattes: lattes.cnpq.br/5438052072229463**1. Education**

Year	Title	Institution	Location
2006/07	Postdoctoral Researcher	Utah State University	Logan, Utah, USA
2006	PhD - Biology	Utah State University	Logan, Utah, USA
2000	MSc - Microbiology	Universidade Estadual Paulista Júlio de Mesquita Filho	Jaboticabal, SP, Brazil
1985	Specialization - Biology	Universidade Estadual de Campinas	Campinas, SP, Brazil
1983	BSc- Biology	Universidade São Francisco	Bragança Paulista, SP, Brazil

2. Professional experience

Year	Title	Institution	Location
2016-present	Visiting professor	Universidade Federal de Goiás	Goiania, GO, Brazil
2007 -2015	Professor	Universidade do Vale do Paraíba	São Jose dos Campos, SP, Brazil
2000 - 2002	Researcher	Utah State University	Logan, Utah, USA
1998 - 1998	High School Teacher	E.E.P.S.G. Aurélio A. Martins,	Jaboticabal, SP, Brazil
1997 - 1998	High School Teacher	E.E.P.G. Orlando M. Zambotto	Jarinú, SP, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Cray, J. A., Connor, M. C., Stevenson, A., Houghton, J. D. R., Rangel, D. E. N., Cooke, L. R., and Hallsworth, J. E. (2016) Biocontrol agents promote growth of potato pathogens, depending on environmental conditions. *Microbial Biotechnology*
2. Brancini, G. T. P., Rangel, D. E. N., and Braga, G. Ú. L. (2016) Exposure of *Metarhizium acridum* mycelium to light induces tolerance to UV-B radiation. *FEMS Microbiology Letters* **363**
3. Lima Alves, F., Stevenson, A., Baxter, E., Gillion, J. L. M., Hejazi, F., Hayes, S., Morrison, I. E. G., Prior, B. A., McGenity, T. J., Rangel, D. E. N., Magan, N., Timmis, K. N., and Hallsworth, J. E. (2015) Concomitant osmotic and chaotropicity-induced stresses in *Aspergillus wentii*: compatible solutes determine the biotic window. *Current Genetics* **61**, 457-477
4. Rangel, D. E. N., Alder-Rangel, A., Dadachova, E., Finlay, R. D., Kupiec, M., Dijksterhuis, J., Braga, G. U. L., Corrochano, L. M., and Hallsworth, J. E. (2015) Fungal stress biology: a preface to the Fungal Stress Responses special edition. *Current Genetics* **61**, 231-238
5. de Menezes, H. D., Massola, N. S., Flint, S. D., Silva, G. J., Bachmann, L., Rangel, D. E. N., and Braga, G. U. L. (2015) Growth under visible light increases conidia and mucilage production and tolerance to UV-B radiation in the plant-pathogenic fungus *Colletotrichum acutatum*. *Photochem Photobiol* **91**, 397-402
6. Stevenson, A., Cray, J. A., Williams, J. P., Santos, R., Sahay, R., Neuenkirchen, N., McClure, C. D., Grant, I. R., Houghton, J. D. R., Quinn, J. P., Timson, D. J., Patil, S. V., Singhal, R. S., Anton, J., Dijksterhuis, J., Hocking, A. D., Lievens, B., Rangel, D. E. N., Voytek, M. A., Gunde-Cimerman, N., Oren, A., Timmis, K. N., McGenity, T. J., and Hallsworth, J. E. (2015) Is there a common water-activity limit for the three domains of life? *ISME J* **9**, 1333–1351
7. Braga, G. U. L., Rangel, D. E. N., Fernandes, É. K. K., Flint, S. D., and Roberts, D. W. (2015) Molecular and physiological effects of environmental UV radiation on fungal conidia. *Current Genetics* **61**, 405-425

8. Rangel, D. E. N., Braga, G. U. L., Fernandes, É. K. K., Keyser, C. A., Hallsworth, J. E., and Roberts, D. W. (2015) Stress tolerance and virulence of insect-pathogenic fungi are determined by environmental conditions during conidial formation. *Current Genetics* **61**, 383-404
9. Rangel, D. E. N., Alder-Rangel, A., Dadachova, E., Finlay, R. D., Dijksterhuis, J., Braga, G. U. L., Corrochano, L. M., and Hallsworth, J. E. (2015) The International Symposium on Fungal Stress: ISFUS. *Current Genetics* **61**, 479-487
10. Fernandes, É. K. K., Rangel, D. E. N., Braga, G. U. L., and Roberts, D. W. (2015) Tolerance of entomopathogenic fungi to ultraviolet radiation: a review on screening of strains and their formulation. *Current Genetics* **61**, 427-440
11. Souza, R. K. F., Azevedo, R. F. F., Lobo, A. O., and Rangel, D. E. N. (2014) Conidial water affinity is an important characteristic for thermotolerance in entomopathogenic fungi. *Biocontrol Science and Technology* **24**, 448-461
12. Keyser, C. A., Fernandes, E. K. K., Rangel, D. E. N., and Roberts, D. W. (2014) Heat-induced post-stress growth delay: A biological trait of many *Metarhizium* isolates reducing biocontrol efficacy? *Journal of Invertebrate Pathology* **120**, 67-73
13. Azevedo, R. F. F., Souza, R. K. F., Braga, G. U. L., and Rangel, D. E. N. (2014) Responsiveness of entomopathogenic fungi to menadione-induced oxidative stress. *Fungal Biol-Uk* **118**, 990-995
14. Costa, L. B., Rangel, D. E. N., Morandi, M. A. B., and Bettioli, W. (2013) Effects of UV-B radiation on the antagonistic ability of *Clonostachys rosea* to *Botrytis cinerea* on strawberry leaves. *Biol Control* **65**, 95-100
15. Rangel, D. E. N., Fernandes, E. K. K., Anderson, A. J., and Roberts, D. W. (2012) Culture of *Metarhizium robertsii* on salicylic-acid supplemented medium induces increased conidial thermotolerance. *Fungal Biol-Uk* **116**, 438-442
16. Costa, L. B., Rangel, D. E. N., Morandi, M. A. B., and Bettioli, W. (2012) Impact of UV-B radiation on *Clonostachys rosea* germination and growth. *World J Microb Biot* **28**, 2497-2504
17. Fernandes, E. K. K., Angelo, I. C., Rangel, D. E. N., Bahiense, T. C., Moraes, A. M., Roberts, D. W., and Bittencourt, V. R. (2011) An intensive search for promising fungal biological control agents of ticks, particularly *Rhipicephalus microplus*. *Vet Parasitol* **182**, 307-318
18. Santos, M. P., Dias, L. P., Ferreira, P. C., Pasin, L. A., and Rangel, D. E. N. (2011) Cold activity and tolerance of the entomopathogenic fungus *Tolypocladium* spp. to UV-B irradiation and heat. *Journal of Invertebrate Pathology* **108**, 209-213
19. Rangel, D. E. N. (2011) Stress induced cross-protection against environmental challenges on prokaryotic and eukaryotic microbes. *World J Microb Biot* **27**, 1281-1296
20. Rangel, D. E. N., Fernandes, E. K. K., Braga, G. U. L., and Roberts, D. W. (2011) Visible light during mycelial growth and conidiation of *Metarhizium robertsii* produces conidia with increased stress tolerance. *FEMS Microbiology Letters* **315**, 81-86

Elias Hakalehto



Dr. Elias Hakalehto graduated from the University of Helsinki as a microbiologist in 1983 and he obtained his PhD in 2000 from the University of Kuopio on components of the bacterial surface. Dr. Hakalehto studied biotechnology in London (University College London, and the Polytechnic of Central London, now Westminster University) and in the University of Kent in Canterbury, UK, 1984-85. From 1989-90, he carried out research at the Hebrew University of Jerusalem, Israel, in the Biotechnology Unit and Hadassah Medical School as a

visiting scientist. In 1997, he founded the biotechnology company Finnoflag Oy. The company has been launching and promoting new concepts in microbiological research and development, for example the PMEU (Portable Microbe Enrichment Unit) in the fields of biotechnology, health care, and environmental protection. In 2008, he was nominated as an Adjunct Professor in Biotechnical Microbe Analytics for the University of Eastern Finland (former Kuopio University) and in 2016 in Microbiological Agroecology for the University of Helsinki. His main interests are the real-time and long-term monitoring of microbial interactions and roles of fungi and bacteria within communities and in clinical and industrial systems.

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Publication: 20

H-index: 6

1. Education

Year	Title	Institution	Location
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2000	PhD- Biotechnology	University of Finland	Kuopio, Finland
1984/85	International Postgraduate Diploma - Biotechnology	Institute for Biotechnological Studies -University of Kent & University College London, Polytechnic of Central London	Canterbury & London, England, UK
1983	MSc- in Environmental Microbiology	University of Helsinki	Helsinki, Finland

2. Professional experience

Year	Title	Institution	Location
1995-present	CEO, Inventor, Researcher	Finnoflag Oy, Kuopio, Finland	Kuopio, Finland
2016-present	Adjunct Professor in Microbiological Agroecology	Dept of Agricultural Studies, University of Helsinki	Helsinki, Finland
2008-present	Adjunct Professor in Biotechnical Analytics	University of Eastern Finland	Kuopio, Finland
1987-1995	Assistant teacher, Project leader	University of Kuopio	Kuopio, Finland
1986	Researcher	Valio Corporation	Helsinki, Finland

3. List of the most relevant publication (up to 20 papers)

1. **Hakalehto, E.** (2015). Enhanced microbial process in the sustainable fuel production. In: Jinyue, Y (ed.). *Handbook of clean energy systems*. Wiley JR & Sons. Inc, Chichester, West Sussex, UK
2. **Hakalehto, E.** (2015). Bacteriological indications of human activities in the ecosystems. In: Armon, R. & Hänninen, O. (eds.) *Environmental indicators*. Springer Verlag, Germany.
3. **Hakalehto, E.,** Jääskeläinen, A., Humppi, T., & Heitto, L. (2013). Production of energy and chemicals from biomasses by micro-organisms. In: Dalhquist, E. (Ed.): *Biomass as energy source: resources, systems and applications*. CRC Press, Taylor & Francis Group, London, UK.
4. **Hakalehto, E.** (2011). Antibiotic resistance traits of facultative *Enterobacter cloacae* strain studied with the PMEUE (Portable Microbe Enrichment Unit). In: Antonio Méndez-Vilas (ed.) *Science against microbial pathogens: communicating current research and technological advances*, Formatex Research Center, Badajoz. Spain: Microbiology Series N:03. Vol. 2. pp.786- 796.
5. Samgina, T.Y., Tolpina, M.I., **Hakalehto, E.,** Artemenko, K.A., Bergquist, J., Lebedev, A.T. (2016). Proteolytic degradation and deactivation of amphibian skin peptides obtained by electrical stimulation of their dorsal glands. *Anal. Bioanal. Chem.*, 408: 3761-376
6. **Hakalehto, E.** (2013). Enhanced mycobacterial diagnostics in liquid medium by microaerobic bubble flow in Portable Microbe Enrichment Unit. *Pathophysiology*, 20: 177–180.
7. Samgina, T., Vorontsov, E., Gorshkov, V., **Hakalehto, E.,** Hänninen, O., Zubarev, R. & Lebedev, A. (2012). Composition and antimicrobial activity of the skin peptidome of Russian brown frog *Rana temporaria*. *J Proteome Res*, 11: 6213-6222.
8. **Hakalehto, E.,** & Heitto, L. (2012). Minute microbial levels detection in water samples by Portable Microbe Enrichment Unit Technology. *Environment and Natural Resources Research*, 2: 80-88.
9. **Hakalehto, E.,** & Hänninen, O. (2012). Gaseous CO₂ signal initiate growth of butyric acid producing *Clostridium butyricum* both in pure culture and in mixed cultures with *Lactobacillus brevis*. *Can J Microbiol*, 58: 928-931.
10. **Hakalehto, E.,** Heitto, A., Heitto, L., Humppi, T., Rissanen, K., Jääskeläinen, A., Hänninen, O. (2011). Fast monitoring of water distribution system with portable enrichment unit –Measurement of volatile compounds of coliforms and *Salmonella* sp. in tap water. *Journal of Toxicology and Environmental Health Sciences*, 3: 223-233.

11. Pesola, J., & **Hakalehto, E.** (2011). Enterobacterial microflora in infancy - a case study with enhanced enrichment. *Indian J Pediatr*, 78: 562-568.
12. **Hakalehto, E.**, Vilpponen-Salmela, T., Kinnunen, K., & von Wright, A. (2011). Lactic acid bacteria enriched from human gastric biopsies. *ISRN Gastroenterol*, 2011: 109-183.
13. **Hakalehto, E.**, Hell, M., Bernhofer, C., Heitto, A., Pesola, J., Humppi, T., & Paakkanen, H. (2010). Growth and gaseous emissions of pure and mixed small intestinal bacterial cultures: Effects of bile and vancomycin. *Pathophysiology*, 17: 45-53.
14. Pitkänen, T., Bräcker, J., Miettinen, I., Heitto, A., Pesola, J., & **Hakalehto, E.** (2009). Enhanced enrichment and detection of thermotolerant *Campylobacter* species from water using the Portable Microbe Enrichment Unit (PMEU) and realtime PCR. *Can J Microbiol*, 55: 849-858.
15. **Hakalehto, E.**, Pesola, J., Heitto, A., Deo, B. B., Rissanen, K., Sankilampi, U., Humppi, T., & Paakkanen, H. (2009). Fast detection of bacterial growth by using Portable Microbe Enrichment Unit (PMEU) and ChemPro100i® gas sensor. *Pathophysiology*, 16: 57-62.
16. Pesola, J., Vaarala, O., Heitto, A., & **Hakalehto, E.** (2009). Use of portable enrichment unit in rapid characterization of infantile intestinal enterobacterial microbiota. *Microb Ecol Health Dis*, 21: 203-210.
17. **Hakalehto, E.**, Humppi, T., & Paakkanen, H. (2008). Dualistic acidic and neutral glucose fermentation balance in small intestine: Simulation *in vitro*. *Pathophysiology*, 15: 211-220
18. **Hakalehto, E.**, Santa H, Vepsäläinen J, Laatikainen R, Finne J. (1997). Identification of a common structural motif in the disordered N-terminal region of bacterial flagellins. Evidence for a new class of fibril-forming peptides. *Eur J Biochem*, 250: 19-29.
19. **Hakalehto, E.** & Finne, J. (1990). Identification by immunoblot analysis of major antigenic determinants of the anaerobic beer spoilage bacterium genus *Pectinatus*. *FEMS Microbiol Lett*, 67: 307-312.
20. **Hakalehto, E.**, Haikara, A., Lounatmaa, K. & Enari, T.-M. (1984) Hydrochloric acid extractable protein patterns of *Pectinatus cerevisiophilus* strain. *Food Microbiol*, 1: 209-216.

Elis C. A. Eleutherio



Dr. Elis Eleutherio Christina Araujo received her BS in Chemical Engineering and PhD in Biochemistry from the Universidade Federal de Rio de Janeiro (UFRJ) in 1989 and 1997, respectively. Currently, Dr Eleutherio is an Associate Professor at the Institute of Chemistry, UFRJ, with level 2 Productivity from the National Council for Scientific and Technological Development (CNPq). As head of the Laboratory of Investigation of Stress Factors since 1998, she oriented the research of her team towards the physiology of the yeast *Saccharomyces cerevisiae* and the exploitation of biotechnological tools in this perspective.

She has developed expertise on the cellular response to stress conditions. Eleutherio coordinates a national network for genetic improvement of industrial yeast strains and is a member of the consortia BIOETHANOL2G and PROETHANOL2G/Brazil-Europe.

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Súmula Curricular

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Publication: 50

Total Citations: 1082

H-index: 18

CNPq Lattes: [7716423349207719](https://lattes.cnpq.br/7716423349207719)

1. Education

Year	Title	Institution	Location
1997	PhD - Biochemistry	Universidade Federal do Rio de Janeiro	Rio de Janeiro, RS, Brazil
1992	MSc - Biochemistry	Universidade Federal do Rio de Janeiro	Rio de Janeiro, RS, Brazil
1988	BS - Chemical Engineering	Universidade Federal do Rio de Janeiro	Rio de Janeiro, RS, Brazil

2. Professional experience

Year	Title	Institution	Location
1998 - present	Associate Professor	Universidade Federal do Rio de Janeiro	Rio de Janeiro, RS, Brazil
1996-	Teaching Assistant	Universidade Federal do Rio de Janeiro	Rio de Janeiro, RS, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Trevisol, Eduardo T.V. ; Panek, Anita D. ; De Mesquita, Joelma **Eleutherio, E. C. A.**; (2014) Regulation of the yeast trehalose-synthase complex by cyclic AMP-dependent phosphorylation. *Biochim Biophys Acta.* 1840:1646-50
2. Sa, R. A.; Castro, F.; **Eleutherio, E. C. A.**; Silva, J. F.; Pereira, M. D. Brazilian propolis protects *Saccharomyces cerevisiae* cells against oxidative stress. *Brazilian Journal of Microbiology*, 2014.
3. Vilela, L.; Mello, V. M.; Bon, E. P. S.; Torres, F. A. G.; Neves, B. C.; **Eleutherio, E. C. A.** (2013) Functional expression of *Burkholderia cenocepacia* xylose isomerase in yeast increases ethanol production from a glucose-xylose blend. *Bioresource Technology.* , v.128, p.792 – 796.
4. Brasil, A.; Belati, A.; Mannarino, S. C.; Panek, A.; **Eleutherio, E. C. A.**; Pereira, M. D. (2013) The involvement of gsh in the activation of human sod1 linked to fals in chronologically aged yeast cells. *FEMS Yeast Research.* , v.XX, p.1 – 6.
5. Mannarino Sc, Vilela, L. F.; Brasil Aa, Aranha, J. N.; Moradas-Ferreira, P.; Pereira, M. D.; Costa, V.; **Eleutherio, E. C. A.** (2011) Requirement of glutathione for Sod1 activation during lifespan extension. *Yeast (Chichester, England. Print).* , v.28, p.19 – 25.
6. Silva, C. G.; Carvalho, C. D. F.; Hamersky, L.; Castro, F.; Alves, R. J. V.; Kaiser, C. R.; **Eleutherio, E. C. A.**; Rezende, C. M. (2012) Protective effects of flavonoids and extract from *Vellozia kolbekii* Alves against oxidative stress induced by hydrogen peroxide in yeast. *Natural Medicines.* , v.66, p.367 – 372.
7. Horn, Adolfo, Parrilha, Gabrieli L.; Melo, Karen V.; Fernandes, Christiane, Horner, Manfredo, Visentin, Lorenzo do C.; Santos, Jullyane A. S.; Santos, Monique S.; **Eleutherio, E. C. A.**; Pereira, Marcos D. (2010) An Iron-Based Cytosolic Catalase and Superoxide Dismutase Mimic Complex. *Inorganic Chemistry.* , v.49, p.1274 – 1276.
8. Souza, P. A.; Silva, C. G.; Machado, B. R. P.; Lucas, N. C.; Leitao, G. G.; **Eleutherio, E. C. A.**; Benchetrit, L. C. (2010) Evaluation of antimicrobial, antioxidant and phototoxic activities of extracts and isolated compounds from *Stachytarpheta cayennensis* (Rich.) Vahl, Verbenaceae. *Revista Brasileira de Farmacognosia.* , v.20, p.922 – 928.
9. Adamis, P. D. B.; Mannarino Sc, **Eleutherio, E. C. A.** (2009) Glutathione and gamma-glutamyl transferases are involved in the formation of cadmium-glutathione complex. *FEBS Letters.* v.583, p.1489 – 1492.
10. Gomes, D. S.; Pereira, M. D.; Panek, A. D.; Andrade, L. R.; **Eleutherio, E. C. A.** (2008) Apoptosis as a mechanism for removal of mutated cells of *Saccharomyces cerevisiae*: the role of Grx2 under cadmium exposure.. *Biochimica et Biophysica Acta. G, General Subjects.* , v.1780, p.160 – 166.
11. Castro, F.; Mariani, D.; Panek, A. D.; **Eleutherio, E. C. A.**; Pereira, M. D. (2008) Cytotoxicity Mechanism of Two Naphthoquinones (Menadione and Plumbagin) in *Saccharomyces cerevisiae* Cells. *PLoS.* , v.3, p.1 – 6, .
12. Mannarino Sc, Amorim, M. A.; Pereira, M. D.; Moradas-Ferreira, P.; Panek, A. D.; Costa, V.; **Eleutherio, E. C. A.** (2008) Glutathione is necessary to ensure benefits of calorie restriction during ageing in *Saccharomyces cerevisiae*. *Mechanisms of Ageing and Development.* , v.129, p.700 – 705.
13. Mariani, D.; Mathias, C. J.; Silva, C. G.; Herdeiro, R. S.; Panek, A. D.; **Eleutherio, E. C. A.**; Pereira, M. D. (2008) Involvement of glutathione transferases, Gtt1 and Gtt2, with oxidative stress response generated by H₂O₂ during growth of *Saccharomyces cerevisiae*. *Redox Report (Edinburgh).* , v.13, p.246 – 254.
14. Azeredo, Marcelo Aragão Insuellas de, Azeredo, Luciana Aragão Insuellas de, **Eleuthério, Elis Cristina Araújo**, Schanaider, Alberto. (2008) Propofol and N-Acetylcysteine attenuate oxidative stress induced by intestinal ischemia/reperfusion in rats: Protein carbonyl detection by immunoblotting. *Acta Cirurgica Brasileira (Impresso).*; v.23, p.425.
15. Fernandes, P. N. ; Mannarino S.C ; Silva, C. G. ; Pereira, M. D. ; Panek, A. D. ; **Eleutherio, E. C. A.** (2007) Oxidative stress response in eukaryotes: effect of glutathione, superoxide dismutase and

- catalase on adaptation to peroxide and menadione stresses in *Saccharomyces cerevisiae*. Redox Rep. 12:236-44.
16. França MB, Panek, A. D. ; **Eleutherio, E. C. A.** (2007) Oxidative stress and its effects during dehydration. Comp Biochem Physiol A Mol Integr Physiol. 146:621-31.
 17. Silva, C. G. ; Herdeiro, R. S. ; Mathias, C. J. ; Panek, A. D. ; Silva, J. F. ; Menezes, F. S. ; **Eleutherio, E. C. A.** .(2005) Evaluation of antioxidant activity of Brazilian plants. Pharmacol Res. 52:229-33.
 18. Pereira MD; Panek, A. D. ; **Eleutherio, E. C. A.** (2003) Targets of oxidative stress in yeast sod mutants. Biochim Biophys Acta. 1620:245-51.
 19. Gomes, D. S. ; Fragoso, L. C. ; Riger, C. J. ; Panek, A. D. ; **Eleutherio, E. C. A.** (2002) Regulation of cadmium uptake by *Saccharomyces cerevisiae*. Biochim Biophys Acta. 1573:21-5.
 20. **Eleutherio EC**, Araujo, P. S. ; Panek, A. D. .(1993) Role of the trehalose carrier in dehydration resistance of *Saccharomyces cerevisiae*. Biochim Biophys Acta. 1156:263-6.

Éverton Kort Kamp Fernandes



Dr. Éverton Kort Kamp Fernandes graduated in Veterinary Medicine from the Universidade Federal Rural do Rio de Janeiro (UFRRJ) in 2001, received his Master's in Veterinary Science - Veterinary Parasitology - in 2003, and his PhD in 2007 at the same University, UFRRJ. Fernandes was a postdoctoral fellow with Dr. Donald Roberts at the Department of Biology, Utah State University for four years developing studies on isolation of entomopathogenic fungi from soil, and phylogenetics. Currently, he is a Professor at the Federal University of Goiás where he teaches Parasitology. He has been developing studies on response of entomopathogenic fungi to heat and UV stresses. The fungi are tested to control agricultural pest insects and insects that are vectors of parasites

and pathogens to animals and humans. He has dedicated most of his career to studying the use of entomopathogenic fungi to control arthropods of veterinary importance, especially the cattle tick, *Rhipicephalus microplus*.

Mailing address

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Súmula Curricular

ResearcherID: www.researcherid.com/rid/I-4890-2012

Publication: 25

Total Citations: 415

H-index: 13

CNPq Lattes: lattes.cnpq.br/2135541732341157

1. Education

Year	Title	Institution	Location
2007/10	Postdoctoral Researcher	Utah State University	Logan, Utah, USA
2007	PhD - Veterinary Parasitology	Universidade Federal Rural do Rio de Janeiro	Rio de Janeiro, RJ, Brazil

2003	MSc - Veterinary Parasitology	Universidade Federal Rural do Rio de Janeiro	Rio de Janeiro, RJ, Brazil
2001	BSc - Veterinary Medicine	Universidade Federal Rural do Rio de Janeiro	Rio de Janeiro, RJ, Brazil

2. Professional experience

Year	Title	Institution	Location
2010-current	Professor	Universidade Federal de Goiás / IPTSP	Goiânia, Goiás, Brazil

3. List of the most relevant publication (up to 20 papers)

- Barreto, Lucas P.; Luz, Christian; Mascarin, Gabriel M.; Roberts, Donald W.; Arruda, Walquíria; **Fernandes Éverton K.K.**, (2016). Effect of heat stress and oil formulation on conidial germination of *Metarhizium anisopliae* s.s. on tick cuticle and artificial medium. *Journal of Invertebrate Pathology*, v. 138, p. 94-103.
- Braga, G. U. L., Rangel, D. E. N., **Fernandes, É. K. K.**, Flint, S. D., and Roberts, D. W. (2015) Molecular and physiological effects of environmental UV radiation on fungal conidia. *Current Genetics* **61**, 405-425
- Rangel, D. E. N., Braga, G. U. L., **Fernandes, É. K. K.**, Keyser, C. A., Hallsworth, J. E., and Roberts, D. W. (2015) Stress tolerance and virulence of insect-pathogenic fungi are determined by environmental conditions during conidial formation. *Current Genetics* **61**, 383-404
- Fernandes, É. K. K.**, Rangel, D. E. N., Braga, G. U. L., and Roberts, D. W. (2015) Tolerance of entomopathogenic fungi to ultraviolet radiation: a review on screening of strains and their formulation. *Current Genetics* **61**, 427-440
- Keyser, C. A., **Fernandes, E. K. K.**, Rangel, D. E. N., and Roberts, D. W. (2014) Heat-induced post-stress growth delay: A biological trait of many *Metarhizium* isolates reducing biocontrol efficacy? *Journal of Invertebrate Pathology* **120**, 67-73
- Rueda Páramo, Manuel E.; López Lastra, Claudia C.; García, Juan J.; **Fernandes, Éverton K.K.**; Marreto, Ricardo N.; Luz, Christian. (2015) Effect of ultraviolet-A radiation on the production of *Leptoglenia chapmanii* (Saprolegniales: Saprolegniaceae) zoospores on dead *Aedes aegypti* (Diptera: Culicidae) larvae and their larvicidal activity. *Journal of Invertebrate Pathology* (Print), v. 130, p. 133-135.
- Fernandes, É. K. K.**; Bittencourt, V. R. E. P.; Roberts, D. W. (2012) Perspectives on the potential of entomopathogenic fungi in biological control of ticks. *Experimental Parasitology*, v. 130, p. 300-305.
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13. Fang, W.; **Fernandes, É. K. K.**; Roberts, D.W.; Bidochka, M. J. and St. Leger, R. J. (2010) A laccase exclusively expressed by *Metarhizium anisopliae* during isotropic growth is involved in pigmentation, tolerance to abiotic stresses and virulence. *Fungal Genetics and Biology*, v. 47, p. 602-607.
14. **Fernandes, É. K. K.**; Keyser, C. A.; Rangel, D. E. N.; Foster, R. N. and Roberts, D. W. (2010) CTC medium: a novel dodine-free selective medium for isolating entomopathogenic fungi, especially *Metarhizium acridum*, from soil. *Biological Control*, v. 54, p. 197-205.
15. **Fernandes, É. K. K.**; Moraes, Á. M. L.; Pacheco, R. S.; Rangel, D. E. N.; Miller, M. P.; Bittencourt, V. R. E. P. and Roberts, D. W. (2009) Genetic diversity among Brazilian isolates of *Beauveria bassiana*: comparisons with non-Brazilian isolates and other *Beauveria* species. *Journal of Applied Microbiology*, v. 107, p. 760-774.
16. **Fernandes, É. K. K.**; Rangel, D. E. N.; Moraes, Á. M. L.; Bittencourt, V. R. E. P. and Roberts, D. W. (2008) Cold activity of *Beauveria* and *Metarhizium*, and thermotolerance of *Beauveria*. *Journal of Invertebrate Pathology*, v. 98, p. 69-78.
17. **Fernandes, É. K. K.** and Bittencourt, V. R. E. P. (2008) Entomopathogenic fungi against South American tick species. *Experimental and Applied Acarology*, v. 46, p. 71-93, 2008.
18. **Fernandes, É. K. K.**; Rangel, D. E. N.; Moraes, Á. M. L.; Bittencourt, V. R. E. P. and Roberts, D. W. (2007) Variability in tolerance to UV-B radiation among *Beauveria* spp. isolates. *Journal of Invertebrate Pathology*, v. 96, p. 237-243.
19. **Fernandes, É. K. K.**; Costa, G. L.; Moraes, Á. M. L. and Bittencourt, V. R. E. P. (2004) Entomopathogenic potential of *Metarhizium anisopliae* isolated from engorged females and tested in eggs and larvae of *Boophilus microplus* (Acari: Ixodidae). *Journal of Basic Microbiology*, v. 44, n. 4, p. 270-274.
20. **Fernandes, É. K. K.**; Costa, G. L.; Souza, E. J.; Moraes, Á. M. L. and Bittencourt, V. R. (2003) *Beauveria bassiana* isolated from engorged females and tested against eggs and larvae of *Boophilus microplus* (Acari: Ixodidae). *Journal of Basic Microbiology*, v. 43, n. 5, p. 393-398.

Gilberto Úbida Leite Braga



Dr. Gilberto Ú. L. Braga graduated in Biology from the Universidade Estadual de Campinas (UNICAMP) in 1987 and in Agronomic Engineering from the Universidade de São Paulo (ESALQ-USP) in 1992. He obtained his Master's degree in Genetics from the Universidade de São Paulo (ESALQ-USP) in 1992, supervised by Dr. Roland Vencovsky, and his PhD in Molecular Genetics by the Universidade Estadual de Campinas (UNICAMP) in 1997, supervised by Dr. Claudio Luiz Messias. From 1999 to 2001, Gilberto was a post-doctoral fellow in Microorganism Photobiology at the Utah State University with Dr. Donald W. Roberts. Since 2003, he has worked as a Genetics professor at the Faculdade de Ciências Farmacêuticas of

the Universidade de São Paulo at Ribeirão Preto with level 2 Productivity from the National Council for Scientific and Technological Development (CNPq).. His major research areas are fungal photobiology and antimicrobial photodynamic treatment.

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1. Education

Year	Title	Institution	Location
1999-2000	Postdoctoral Researcher-Microorganism Photobiology	Utah State University	Logan, Utah, USA
1997	PhD - Genetics	Universidade Estadual de Campinas	Campinas, SP, Brazil
1992	MSc - Genetics	Universidade de São Paulo	Piracicaba, SP, Brazil
1992	BS - Agronomic Engineering	Universidade de São Paulo	Piracicaba, SP, Brazil
1987	BS - Biology	Universidade Estadual de Campinas	Campinas, SP, Brazil

2. Professional experience

Year	Title	Institution	
2003-present	Professor	Faculdade de Ciências Farmacêuticas - Universidade de São Paulo	Ribeirão Preto, SP, Brazil
2002	Professor	Universidade Estadual Paulista	Botucatu, SP, Brazil
2001	Associate Researcher	Utah State University	Logan, Utah, USA

3. List of the most relevant publication (up to 20 papers)

1. Fracarolli, L., Rodrigues, G. B., Pereira, A. C., Massola Júnior, Silva-Júnior, G. J., Bachmann, L., Wainwright, Bastos, J. K., **Braga, G. U. L.** (2016). Inactivation of plant-pathogenic fungus *Colletotrichum acutatum* with natural plant-produced photosensitizers under solar radiation. *Journal of Photochemistry and Photobiology B: Biology* 162: 402-411.
2. Brancini, G. T. P., Rangel, D. E. N., **Braga, G. U. L.** (2016). Exposure of *Metarhizium acridum* mycelium to light induces tolerance to UV-B radiation. *FEMS Microbiology Letters* 363
3. **Braga, G. U. L.**, Rangel, D. E. N., Fernandes É. K. K., Flint, S. D., Roberts, D. W. (2015). Molecular and physiological effects of environmental UV radiation on fungal conidia. *Current Genetics* 61:405-425.
4. Fernandes, É. K. K., Rangel, D. E. N., **Braga, G. U. L.**, Roberts, D. W. (2015). Tolerance of entomopathogenic fungi to ultraviolet radiation: a review on screening of strains and their formulation. *Current Genetics* 61:427-440.
5. Rangel, D. E. N., **Braga, G. U. L.**, Fernandes É. K. K., Keyser C. A., Hallsworth, J. E., Roberts, D. W. (2015). Stress tolerance and virulence of insect-pathogenic fungi are determined by environmental conditions during conidial formation. *Current Genetics* 61:383-404.
6. de Menezes, H. D., Massola Jr, N. S., Flint, S. D., Silva Jr, G. J., Bachmann, L., Rangel, D. E. N., **Braga, G. U. L.** (2015). Growth under visible light increases conidia and mucilage production and tolerance to UV-B radiation in the plant pathogenic fungus *Colletotrichum acutatum*. *Photochemistry and Photobiology* 91:397-402.
7. de Menezes, H. D., Pereira, A. C., Brancini, G. T. P., de Leão, H. C., Massola Jr, N. S., Bachmann, L., Wainwright, M., Bastos, Jairo K., **Braga, G. U. L.** (2014). Furocoumarins and coumarins photoinactivate *Colletotrichum acutatum* and *Aspergillus nidulans* fungi under solar radiation. *Journal of Photochemistry and Photobiology B: Biology* 131:74-83.
8. de Menezes, H. D., Rodrigues, G. B., Teixeira, S. P., Massola Jr, N. S., Bachmann, L., Wainwright, M., **Braga, G. U. L.** (2014). *In vitro* photodynamic inactivation of the plant-pathogenic fungi *Colletotrichum acutatum* and *Colletotrichum gloeosporioides* with novel phenothiazinium photosensitizers. *Applied and Environmental Microbiology* 80:1553-1560.
9. Rodrigues, G. B., Dias-Baruffi, M., Holman, N., Wainwright, M., **Braga, G. U. L.** (2013). *In vitro* photodynamic inactivation of *Candida* species and mouse fibroblasts with phenothiazinium photosensitizers and red light. *Photodiagnosis and Photodynamic Therapy* 10:141-149.
10. Rodrigues, G. B., Ferreira, L. K. S. Wainwright, M., **Braga, G. U. L.** (2012). Susceptibilities of the dermatophytes *Trichophyton mentagrophytes* and *T. rubrum* microconidia to photodynamic antimicrobial chemotherapy with novel phenothiazinium photosensitizers and red light. *Journal of Photochemistry and Photobiology B: Biology* 116: 89-94.
11. Rodrigues, G. B., Primo, F. L., Tedesco, A. C., **Braga, G. U. L.** (2012). *In vitro* photodynamic inactivation of *Cryptococcus neoformans* melanized cells with chloroaluminum phthalocyanine nanoemulsion. *Photochemistry and Photobiology* 88: 440-447.
12. Barros, B. H. R., da Silva, S. H., Marques, E. R., Rosa, J. C., Yatsuda, A. P., Roberts, D. W., **Braga, G. U. L.** (2010). A proteomic approach to identifying proteins differentially expressed in conidia and mycelium of the entomopathogenic fungus *Metarhizium anisopliae*. *Fungal Biology* 114: 572-579, 2010.

Gustavo H. Goldman



Dr. Gustavo H. Goldman received his undergraduate at the Universidade Federal do Rio de Janeiro, Brazil, Master of Science degree in Microbiology at the Universidade de São Paulo, Brazil, and PhD degree in Molecular Biology at the University of Gent, Belgium. His PhD thesis was on molecular genetics of mycoparasitism by *Trichoderma* spp., supervised by Marc van Montagu. He was a post-doctoral fellow with N. Ronald Morris at the University of Medicine and Dentistry of New Jersey, USA. Dr. Goldman established his own laboratory at the Universidade de São Paulo in 1994. His current research lines are related to how fungus can sense nutrients and how MAP kinases and phosphatases are able to help to cope with environmental changes and recognition by using *Aspergillus nidulans* and *A. fumigatus* as model systems. He is a level 1A CNPq research fellow.

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H-index: 44

CNPq Lattes: 1595358007418855

1. Education

Year	Title	Institution	Location
1993/94	Postdoctoral researcher in Cell Biology	University of Medicine and Dentistry of New Jersey	Newark, New Jersey, USA
1993	PhD in Molecular Biology	University of Gent	Gent, Belgium
1988	MS in Microbiology	Universidade de São Paulo	Piracicaba, SP, Brazil

1983	BSc in Biology	Universidade Federal do Rio de Janeiro	Rio de Janeiro, Brazil
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2. Professional experience

Year	Title	Institution	Location
2002- present	Professor Titular	Universidade de São Paulo	Ribeirão Preto, São Paulo, Brazil
2008-2012	Visiting Professor	Universidade do Minho	Braga, Portugal
1998-2002	Associate Professor	Universidade de São Paulo	Ribeirão Preto, São Paulo, Brazil
1994-1998	Assistant Professor	Universidade de São Paulo	Ribeirão Preto, São Paulo, Brazil

3. List of the most relevant publication (up to 20 papers)

- Ries LN, Beattie SR, Espeso EA, Cramer RA, **Goldman GH**. (2016) Diverse Regulation of the CreA Carbon Catabolite Repressor in *Aspergillus nidulans*. *Genetics*. 203(1):335-52.
- Bruder Nascimento AC, Dos Reis TF, de Castro PA, Hori JI, Bom VL, de Assis LJ, Ramalho LN, Rocha MC, Malavazi I, Brown NA, Valiante V, Brakhage AA, Hagiwara D, **Goldman GH**. (2016) Mitogen activated protein kinases Saka(HOG1) and MpkC collaborate for *Aspergillus fumigatus* virulence. *Mol Microbiol*. 100(5):841-59.
- Brown NA, Dos Reis TF, Ries LN, Caldana C, Mah JH, Yu JH, Macdonald JM, **Goldman GH**. (2015) G-protein coupled receptor-mediated nutrient sensing and developmental control in *Aspergillus nidulans*. *Mol Microbiol*.
- Winkelströter LK, Dolan SK, Fernanda Dos Reis T, Bom VL, Alves de Castro P, Hagiwara D, Alowni R, Jones GW, Doyle S, Brown NA, **Goldman GH**. (2015) Systematic Global Analysis of Genes Encoding Protein Phosphatases in *Aspergillus fumigatus*. *G3(Bethesda)*. 5;5(7):1525-39.
- Bom VL, de Castro PA, Winkelströter LK, Marine M, Hori JI, Ramalho LN, dosReis TF, Goldman MH, Brown NA, Rajendran R, Ramage G, Walker LA, Munro CA, Rocha MC, Malavazi I, Hagiwara D, **Goldman GH**. (2015) The *Aspergillus fumigatus* sitA Phosphatase Homologue Is Important for Adhesion, Cell Wall Integrity, Biofilm Formation, and Virulence. *Eukaryot Cell*. 14(8):728-44.
- de Assis LJ, Ries LN, Savoldi M, Dinamarco TM, **Goldman GH**, Brown NA. (2015)Multiple Phosphatases Regulate Carbon Source-Dependent Germination and Primary Metabolism in *Aspergillus nidulans*. *G3 (Bethesda)*. 11;5(5):857-72.
- Winkelströter LK, Bom VL, de Castro PA, Ramalho LN, Goldman MH, Brown NA, Rajendran R, Ramage G, Bovier E, Dos Reis TF, Savoldi M, Hagiwara D, **Goldman GH**. (2015) High osmolarity glycerol response PtcB phosphatase is important for *Aspergillus fumigatus* virulence. *Mol Microbiol*. 96(1):42-54.
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- de Castro PA, Chen C, de Almeida RS, Freitas FZ, Bertolini MC, Morais ER, Brown NA, Ramalho LN, Hagiwara D, Mitchell TK, **Goldman GH**. (2014) ChIP-seq reveals a role for CrzA in the *Aspergillus fumigatus* high-osmolarity glycerol response (HOG) signalling pathway. *Mol Microbiol*. 94(3):655-74.
- Krohn NG, Brown NA, Colabardini AC, Reis T, Savoldi M, Dinamarco TM, Goldman MH, **Goldman GH**. (2014) The *Aspergillus nidulans* ATM kinase regulates mitochondrial function, glucose uptake and the carbon starvation response. *G3 (Bethesda)*. 10;4(1):49-62.
- Dinamarco TM, Almeida RS, de Castro PA, Brown NA, dos Reis TF, Ramalho LN, Savoldi M, Goldman MH, **Goldman GH**. (2012) Molecular characterization of the putative transcription factor SebA involved in virulence in *Aspergillus fumigatus*. *Eukaryot Cell*. 11(4):518-31.
- Soriani FM, Malavazi I, da Silva Ferreira ME, Savoldi M, Von Zeska Kress MR, de Souza **Goldman MH**, Loss O, Bignell E, Goldman GH. (2008) Functional characterization of the *Aspergillus fumigatus* CRZ1 homologue, CrzA. *Mol Microbiol*. 67(6):1274-91.

13. Nierman WC, Pain A, Anderson MJ, Wortman JR, Kim HS, Arroyo J, Berriman M, Abe K, Archer DB, Bermejo C, Bennett J, Bowyer P, Chen D, Collins M, Coulsen R, Davies R, Dyer PS, Farman M, Fedorova N, Fedorova N, Feldblyum TV, Fischer R, Fosker N, Fraser A, García JL, García MJ, Goble A, **Goldman GH**, Gomi K, Griffith-Jones S, Gwilliam R, Haas B, Haas H, Harris D, Horiuchi H, Huang J, Humphray S, Jiménez J, Keller N, Khouri H, Kitamoto K, Kobayashi T, Konzack S, Kulkarni R, Kumagai T, Lafon A, Latgé JP, Li W, Lord A, Lu C, Majoros WH, May GS, Miller BL, Mohamoud Y, Molina M, Monod M, Mouyna I, Mulligan S, Murphy L, O'Neil S, Paulsen I, Peñalva MA, Perteua M, Price C, Pritchard BL, Quail MA, Rabbinowitsch E, Rawlins N, Rajandream MA, Reichard U, Renauld H, Robson GD, Rodriguez de Córdoba S, Rodríguez-Peña JM, Ronning CM, Rutter S, Salzberg SL, Sanchez M, Sánchez-Ferrero JC, Saunders D, Seeger K, Squares R, Squares S, Takeuchi M, Tekaiia F, Turner G, Vazquez de Aldana CR, Weidman J, White O, Woodward J, Yu JH, Fraser C, Galagan JE, Asai K, Machida M, Hall N, Barrell B, Denning DW. (2005) Genomic sequence of the pathogenic and allergenic filamentous fungus *Aspergillus fumigatus*. *Nature*. 22;438(7071):1151-6.
14. Galagan JE, Calvo SE, Cuomo C, Ma LJ, Wortman JR, Batzoglou S, Lee SI, Baştürkmen M, Spevak CC, Clutterbuck J, Kapitonov V, Jurka J, Scaccocchio C, Farman M, Butler J, Purcell S, Harris S, Braus GH, Draht O, Busch S, D'Enfert C, Bouchier C, **Goldman GH**, Bell-Pedersen D, Griffiths-Jones S, Doonan JH, Yu J, Vienken K, Pain A, Freitag M, Selker EU, Archer DB, Peñalva MA, Oakley BR, Momany M, Tanaka T, Kumagai T, Asai K, Machida M, Nierman WC, Denning DW, Caddick M, Hynes M, Paoletti M, Fischer R, Miller B, Dyer P, Sachs MS, Osmani SA, Birren BW. (2005) Sequencing of *Aspergillus nidulans* and comparative analysis with *A. fumigatus* and *A. oryzae*. *Nature*. 22;438(7071):1105-15.
15. Nunes LR, Costa de Oliveira R, Leite DB, da Silva VS, dos Reis Marques E, da Silva Ferreira ME, Ribeiro DC, de Souza Bernardes LA, **Goldman MH**, Puccia R, Travassos LR, Batista WL, Nóbrega MP, Nobrega FG, Yang DY, de Bragança Pereira CA, Goldman GH. (2005) Transcriptome analysis of *Paracoccidioides brasiliensis* cells undergoing mycelium-to-yeast transition. *Eukaryot Cell*. 4(12):2115-28.

Iran Malavazi



Dr. Iran Malavazi received undergraduate (Pharmacy and Biochemistry) and Masters Degrees at the Universidade Estadual Paulista, Brazil. His PhD is from the Universidade de São Paulo, Brazil and his thesis was on the characterization of genes involved in the DNA damage response in the model organism *Aspergillus nidulans* supervised by Dr. Gustavo H. Goldman. He was also a post-doc fellow at the same laboratory studying genes involved in the signaling pathway mediated by calcineurin in *A. fumigatus*. Dr. Malavazi established his own laboratory at the Federal University of São Carlos, São Paulo, Brazil in 2010. Since then, the focus of his research has

been the study of the cell wall integrity pathway in the human pathogen *A. fumigatus* and its relationship with fungal biology and virulence.

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Total Citations: 767

H-index: 14

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1. Education

Year	Title or Activity	Institution	Location
2007/09	Post-doctoral training	Universidade de São Paulo	Ribeirão Preto
2007	PhD. - Biosciences Applied	Universidade de São Paulo	Ribeirão Preto

	to Pharmaceutical Sciences		
2003	MSc- Biotechnology	Universidade Estadual Paulista Júlio de Mesquita Filho	Araraquara, SP, Brazil
2001	BS -Pharmacy and Biochemistry	Universidade Estadual Paulista Júlio de Mesquita Filho	Araraquara, SP, Brazil

2. Professional experience

Year	Title	Institution	Location
2009-current	Assistant Professor	Universidade Federal de São Carlos	Campus São Carlos, SP, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Joohae Park, Mark Hulsman, Mark Arentshorst, Matthijs Breeman, Ebru Alazi, Ellen L. Lagendijk, Marina C. Rocha, **Iran Malavazi**, Benjamin M. Nitsche, Cees A.M.J.J. van den Hondell, Vera Meyer, Arthur F. J. Ram. (2016) Transcriptomic and molecular genetic analysis of the cell wall salvage response of *Aspergillus niger* to the absence of galactofuranose synthesis. Cellular Microbiology.
2. Bitencourt, Tamires Aparecida; Macedo, Claudia; Franco, Matheus Eloy; Assis, Amanda Freire; Komoto, Tatiana Takahasi; Stehling, Eliana Guedes; Belebony, Rene Oliveira; **Malavazi, Iran**; Marins, Mozart; Fachin, Ana Lúcia. (2016). Transcription profile of *Trichophyton rubrum* conidia grown on keratin reveals the induction of an adhesin-like protein gene with a tandem repeat pattern. **BMC Genomics**, v. 17, p. 1,
3. De Oliveira Bruder Nascimento, Ariane Cristina Mendes; Dos Reis, Thaila Fernanda; De Castro, Patrícia Alves; Hori, Juliana I.; Bom, Vinícius Leite Pedro; De Assis, Leandro José; Ramalho, Leandra Naira Zambelli; Rocha, Marina Campos; **Malavazi, Iran**; Brown, Neil Andrew; Valiante, Vito; Brakhage, Axel A.; Hagiwara, Daisuke; Goldman, Gustavo H. (2016) Mitogen activated protein kinases SakA HOG1 and MpkC collaborate for *Aspergillus fumigatus* virulence. Molecular Microbiology.
4. Rocha, Marina Campos; Godoy, Krissia Franco De; De Castro, Patrícia Alves; Hori, Juliana Issa; Bom, Vinícius Leite Pedro; Brown, Neil Andrew; Cunha, Anderson Ferreira Da; Goldman, Gustavo Henrique; **Malavazi, Iran**. (2015) The *Aspergillus fumigatus* pkcAG579R Mutant Is Defective in the Activation of the Cell Wall Integrity Pathway but Is Dispensable for Virulence in a Neutropenic Mouse Infection Model. Plos One, v. 10, p.
5. Bom, Vinícius Leite Pedro; De Castro, Patrícia Alves; Winkelströter, Lizziane K.; Marine, Marçal; Hori, Juliana I.; Ramalho, Leandra Naira Zambelli; Dos Reis, Thaila Fernanda; Goldman, Maria Helena S.; Brown, Neil Andrew; Rajendran, Ranjith; Ramage, Gordon; Walker, Louise A.; Munro, Carol A.; Rocha, Marina Campos; **Malavazi, Iran**; Hagiwara, Daisuke; Goldman, Gustavo H. (2015) *Aspergillus fumigatus* sitA phosphatase homologue is important for adhesion, cell wall integrity, biofilm formation and virulence. Eukaryotic Cell.
6. **Malavazi, I.**; Goldman, G. H.; Brown, N. A. (2014) The importance of connections between the cell wall integrity pathway and the unfolded protein response in filamentous fungi. Briefings in functional Genomics, v. 13, p. 456-470.
7. Brown, Neil A.; De Castro, Patrícia A.; De Castro Pimentel Figueiredo, Bárbara; Savoldi, Marcela; Buckridge, Marcos S.; Lopes, Mário L.; De Lima Paullilo, Silene C.; Borges, Eduardo P.; Amorim, Henrique V.; Goldman, Maria H.S.; Bonatto, Diego; **Malavazi, Iran**; Goldman, Gustavo H. (2013) Transcriptional profiling of Brazilian strains selected for semi-continuous fermentation of sugarcane must. FEMS Yeast Research.
8. Benoit, I.; **Malavazi, I.**; Goldman, G. H.; Baker, S. E.; De Vries, R. P. (2013) *Aspergillus - Genomics of a cosmopolitan fungus*. In: Horwitz, B. A.; Mukherjee, P. K.; Mukherjee, M.; Kubicek, C. P. (Ed.). Genomics of Soil- and Plant-Associated Fungi (Soil Biology Series). Berlin Heidelberg: Springer-Verlag.

9. **Malavazi, I.**; Goldman, G. H. **Morphogenesis In *Paracoccidioides Brasiliensis***. In: Pérez-Maertín, J.; Di Pietro, A. (Org.). (2012) Morphogenesis and Pathogenesis in fungi (Topics in Current Genetics). Berlin Heidelberg: Springer-Verlag, v. XIII, p. 163-196.
10. **Malavazi, I.**; Goldman, G H. (2012) Gene disruption in *Aspergillus fumigatus* using a PCR-based strategy and in vivo recombination in yeast. In: Brand, Alexandra C.; MacCallum, Donna M.. (Org.). Methods in Molecular Biology - Host-Fungus Interaction. New York: Humana Press, v. 845, p. 99-118.
11. Desjardins, Christopher A., Champion, Mia D., Holder, Jason W., Muszewska, Anna, Goldberg, Jonathan, Bailão, Alexandre M., Brigido, Marcelo Macedo, Ferreira, Márcia Eliana da Silva, Garcia, Ana Maria, Grynberg, Marcin, Gujja, Sharvari, Heiman, David I., Henn, Matthew R., Kodira, Chinnappa D., León-Narváez, Henry, Longo, Larissa V. G., Ma, Li-Jun, **Malavazi, Iran**, Matsuo, Alisson L., Morais, Flavia V., Pereira, Maristela, Rodríguez-Brito, Sabrina, Sakthikumar, Sharadha, Salem-Izacc, Silvia M., Sykes, Sean M., Teixeira, Marcus Melo, Vallejo, Milene C., Walter, Maria Emília Machado Telles, Yandava, Chandri, Young, Sarah, Zeng, Qiandong, Zucker, Jeremy, Felipe, Maria Sueli, Goldman, Gustavo H., Haas, Brian J., McEwen, Juan G., Nino-Vega, Gustavo, Puccia, Rosana, San-Blas, Gioconda, Soares, Celia Maria de Almeida. (2011) Comparative Genomic Analysis of Human Fungal Pathogens Causing Paracoccidioidomycosis. PLoS Genetics, v.7, p.e1002345.
12. de Souza, Wagner R, de Gouvea, Paula F, Savoldi, Marcela, **Malavazi, Iran**, de Souza Bernardes, Luciano A, Goldman, Maria Helena S, de Vries, Ronald P, de Castro Oliveira, Juliana V, Goldman, Gustavo H. (2011) Transcriptome analysis of *Aspergillus niger* grown on sugarcane bagasse. Biotechnol Biofuels, v.4, p.40 -.
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14. Colabardini, Ana Cristina; De Castro, Patrícia Alves; De Gouvêa, Paula Fagundes; Savoldi, Marcela; **Malavazi, Iran**; Goldman, Maria Helena S.; Goldman, Gustavo Henrique. Involvement of the *Aspergillus nidulans* protein kinase C with farnesol tolerance is related to the unfolded protein response. (2010) Molecular Microbiology, v. 78, p. 1259-1279.
15. **Malavazi, I.**; Ferreira, M E S; Soriani, F. M.; Dinamarco, T. M.; Savoldi, M; Goldman, M H S; Goldman, G H. (2009) Phenotypic analysis of genes whose mRNA accumulation is dependent on calcineurin in *Aspergillus fumigatus*. Fungal Genetics and Biology, v. 46, p. 791-802.
16. Soriani, Frederico Marianetti; **Malavazi, Iran**; da Silva Ferreira, Márcia Eliana; Savoldi, Marcela; Von Zeska Kress, Marcia Regina; De Souza Goldman, Maria Helena; Loss, Omar; Bignell, Elaine; Goldman, Gustavo Henrique.(2008) Functional characterization of the *Aspergillus fumigatus* CRZ1 homologue, CrzA. Molecular Microbiology , v. 67, p. 1274-1291.
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18. **Malavazi, I.**; Lima, J F; Castro, P. A.; Savoldi, M; Goldman, M H S; Goldman, G H . (2008) Genetic interactions of the *Aspergillus nidulans atmA*(ATM) homologue with different components of the DNA damage response pathway. Genetics (Austin), v. 178, p. 675-691.
19. **Malavazi, I.**; Savoldi, M; Ferreira, M E S; Soriani, F. M.; Bonato, S. P.; Goldman, M H S; Goldman, G H . (2007) Transcriptome analysis of the *Aspergillus nidulans* AtmA (ATM, Ataxia-Telangiectasia mutated) null mutant. Molecular Microbiology, v. 66, p. 74-99.
20. Ferreira, M E S; Capellaro, J L; Marques, E R; Malavazi, I.; Perlin, D; Park, S; Anderson, J B; Colombo, A L; Goldman, M H S; Goldman, G H . (2004) In vitro evolution of itraconazole resistance in *Aspergillus fumigatus* involves multiple mechanisms of resistance. Antimicrobial Agents and Chemotherapy, v. 48, n. 11, p. 4405-4413.

Jesús Aguirre



Dr. Jesús Aguirre is a Biologist. He received his PhD in Biomedical Research from Universidad Nacional Autónoma de México (UNAM) in 1988. Then he became postdoctoral associate at the laboratory of Dr. William Timberlake, Department of Genetics, University of Georgia (USA) from 1988 to 1991. Since then, he has been a researcher at Instituto de Fisiología Celular-UNAM. From 2000-2001, Dr. Aguirre spent a sabbatical year at the University of California-Davis. Currently, he is professor and head of the department of Cell Biology and Development. Dr. Aguirre works with the model fungi *Aspergillus nidulans* and *Neurospora crassa*, to approach questions related to stress signaling and cell differentiation.

After proposing cell differentiation as a response to an hyperoxidant state, his research has been focused on studying the mechanisms by which fungi produce, perceive, and detoxify reactive oxygen species (ROS), and the roles that ROS have in gene expression and cell differentiation.

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Súmula Curricular

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Publication: 34

Total Citations: 1836

H-index: 24

1. Education

Year	Title	Institution	Location
1988/91	Postdoctoral Associate	Department of Genetics University of Georgia	Athens, Georgia, USA
1988	PhD - Biomedical Research	Universidad Nacional Autónoma de México	Mexico City, Mexico

1981	BSc - Biology	Universidad Nacional Autónoma de México	Mexico City, Mexico
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2. Professional experience

Year	Title	Institution	Location
2010-present	Department Head	Department of Cell Biology and Development, Instituto de Fisiología Celular, Universidad Nacional Autónoma de México	Mexico City, Mexico
1991-present	Researcher	Instituto de Fisiología Celular, Universidad Nacional Autónoma de México	Mexico City, Mexico
2000-2001	Visiting Scientist	University of California-Davis	Davis California, USA

3. List of the most relevant publication (up to 20 papers)

- Soid-Raggi G, Sánchez O, Ramos-Balderas JL and **Aguirre J** (2016). The Adenylate-Forming Enzymes AfeA and TmpB Are Involved in *Aspergillus nidulans* Self-Communication during Asexual Development (2016). *Front Microbiol. Mar 23*;7:353.
- Jaimés-Arroyo, R., Lara-Rojas, F., Bayram, Ö., Valerius, O., Braus, G.H. and **Aguirre, J.** (2015) The SrkA Kinase Is Part of the SakA Mitogen-Activated Protein Kinase Interactome and Regulates Stress Responses and Development in *Aspergillus nidulans*. *Eukaryotic Cell* 14(5):495-510.
- Dirschnabel, D. E., Nowrousian, M., Cano-Domínguez, N., **Aguirre, J.**, Teichert, I. and Kück, U. (2014) New Insights into the Roles of NADPH Oxidases in Sexual Development and Ascospore Germination in *Sordaria macrospora*. *Genetics* 196(3): 729-744.
- Lara-Rojas, F., Sánchez, O. Kawasaki, L., **Aguirre, J.** (2011) *Aspergillus nidulans* Transcription factor AtfA interacts with the MAPK Saka to Regulate General Stress Responses, Development and Spore Functions. *Mol. Microbiol.* 80(2):436-454.
- Horbach R., A. Graf, F. Weihmann, L. Antelo, S. Mathea, J. Liermann, T. Opatz, E. Thines, **J. Aguirre** and Deising, H. (2009). Sfp-type 4'-phosphopantetheinyl transferase is indispensable for fungal pathogenicity. *Plant Cell.* 21(10):3379-3396.
- Cano-Domínguez, N., Álvarez-Delfín, K. Hansberg, W. and **Aguirre, J.** (2008). The NADPH oxidases NOX-1 and NOX-2 require the regulatory subunit NOR-1 to control cell differentiation and growth in *Neurospora crassa*. *Eukaryot Cell.* 7(8):1352-1361.
- Vargas-Pérez, I., Sánchez, O., Kawasaki, L., Georgellis D. and **Aguirre, J.** (2007). Response regulators SrrA and SskA are central components of a phosphorelay system involved in stress signal transduction and asexual sporulation in *Aspergillus nidulans*. *Eukaryot. Cell* 6(9):1570-1583
- Márquez-Fernández, O., Trigos, A., Ramos-Balderas, J. L., Viniegra-González, G., Deising, H. B. and **Aguirre, J.** (2007) The phosphopantetheinyl transferase CfwA/NpgA is required for *Aspergillus nidulans* secondary metabolism and asexual development. *Eukaryot. Cell* 6(4):710-720.
- Soid-Raggi, G., Sánchez, O. and **Aguirre, J.** (2006) TmpA, a member of a novel family of putative membrane oxidoreductases, regulates asexual development in *Aspergillus nidulans*. *Mol Microbiol* 59(3):854-869.
- Aguirre, J.**, Ríos-Momberg, M., Hewitt, D. and Hansberg, W. (2005) Reactive oxygen species and development in microbial eukaryotes. *Trends in Microbiology* 13(3): 111-118.
- Lara-Ortiz T., Riveros-Rosas H. and **Aguirre J.** (2003) Reactive oxygen species generated by microbial NADPH oxidase NoxA regulate sexual development in *Aspergillus nidulans*. *Mol Microbiol* 50:1241-55.
- Kawasaki, L., Sánchez, O., Shiozaki, K. and **Aguirre, J.** (2002) SakA MAP kinase is involved in stress signal transduction, sexual development and spore viability in *Aspergillus nidulans*. *Mol Microbiol* 45:1153-1163

13. Kawasaki, L. and **Aguirre, J.** (2001) Multiple catalase genes are differentially regulated in *Aspergillus nidulans*. *J. Bacteriol.* 183:1434-1440.
14. Navarro, R. E. and **Aguirre, J.** (1998) Postranscriptional control Mediates the cell type-specific localization of catalase A during *Aspergillus nidulans* development. *J Bacteriol* 180: 5733-5738.
15. Sánchez, O., Navarro, R. and **Aguirre, J.** (1998) Increased transformation frequency and tagging of developmental genes in *Aspergillus nidulans* by restriction enzyme-mediated integration (REMI). *Mol Gen Genetics* 258:89-94.2.
16. **Aguirre, J.**, Rodríguez, R., and Hansberg, W. (1989) Oxidation of *Neurospora crassa* NADP-specific glutamate dehydrogenase by activated oxygen species. *J Bacteriol.* 171: 6243-6250.
17. Skromne, I., Sánchez, O. and **Aguirre, J.** (1995) Starvation stress modulates the expression of the *Aspergillus nidulans* *brlA* regulatory gene. *Microbiology* 141: 21-28.
18. **Aguirre, J.** (1993) Spatial and temporal controls of the *Aspergillus nidulans* *brlA* developmental regulatory gene. *Mol Microbiol* 8: 211-218.
19. Hansberg, W. and **Aguirre, J.** (1990) Hyperoxidant states cause microbial cell differentiation by cell isolation from dioxygen. *J Theor Biol* 142: 201-221.
20. **Aguirre, J.** and Hansberg, W. (1986). Oxidation of *Neurospora crassa* glutamine synthetase. *J Bacteriol.* 166: 1040-1045.

John E. Hallsworth



Dr. John E. Hallsworth graduated in Plant Biotechnology in 1990 (Wye College, University of London, England) and received his PhD in relation to stress metabolism of entomopathogenic fungi in 1995 from the Biotechnology Centre, Cranfield University, England. In 2005, he became a member of Faculty at Queen's University Belfast in Northern Ireland. Since that time, he has worked on cellular stress-mechanisms and stress-responses, especially in relation to water: macromolecule interactions in fungi, yeasts, algae, bacteria and Archaea. This work

has implications for microbial interactions within communities, ecosystem function, the physicochemical boundaries of the functional biosphere, and potential habitability of extraterrestrial (and other hostile) environments.

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Súmula Curricular

ResearcherID: www.researcherid.com/rid/K-7876-2013

Publication: 49

Total Citations: 1563

H-index: 23

1. Education

Year	Title	Institution	Location
2001/05	Postdoctoral Research Fellow	University of Essex	Colchester, England, UK
1998/01	Postdoctoral Research Fellow	University of Stellenbosch	Matieland, South Africa.
1996/98	Postdoctoral Research Fellow	Sojo University	Kumamoto City, Japan.
1994/96	Postdoctoral Research Fellow	Heriot Watt University,	Edinburgh, Scotland, UK.
1995	PhD	Cranfield University	Bedford, England, UK.

1990	BSc :Plant Biotechnology	University of London	Ashford, England, UK.
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2. Professional experience

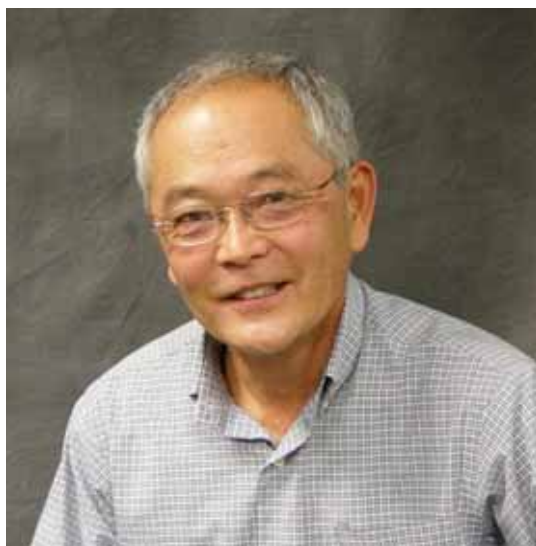
Year	Title	Institution	Location
2005 - present	Lecturer in Environmental Microbiology.	Queen's University of Belfast	Belfast, Northern Ireland, UK.
1988-1989	Research Assistant	Fungicide Discovery Group, Dow Elanco Inc.,	Oxford, England, UK.

3. List of the most relevant publication (up to 20 papers)

1. Paulussen, C., **Hallsworth, J. E.**, Álvarez-Pérez, S., Hamill, P. G., Blain, D., Rediers, H., and B. Lievens. Ecology of aspergillosis: insights into the pathogenic potency of *Aspergillus* species. *Microbial Biotechnology* in press
2. Fox-Powell, M.G., **Hallsworth, J. E.**, Cousins, C. R. and C. S. Cockell (2016) Ionic strength is a barrier to the habitability of Mars. *Astrobiology* 16: 427-442.
3. Cray, J. A., Connor, M. C., Stevenson, A., Rangel, D. E. N., Cooke, L. R. and **J. E. Hallsworth** (2016) Biocontrol agents *promote* growth of potato pathogens, under some environmental conditions. *Microbial Biotechnology* 9: 330-354.
4. Stevenson, A., Cray, J. A., Williams, J. P., Santos, R., Sahay, R., Neuenkirchen, N., McClure, C. D., Grant, I. R., Houghton, J. D. R., Quinn, J. P., Timson, D. J., Patil, S. V., Singhal, R. S., Antón, J. B., Dijksterhuis, J., Hocking, A. D., Lievens, B., Rangel, D. E. N., Voytek, M. A., Gunde-Cimerman, N., Oren, A., Timmis, K. N., McGenity, T. J. and **J. E. Hallsworth** (2015b) Is there a common water-activity limit for the three domains of life? *The ISME J* 9: 1333-1351.
5. Ball, P and **J. E. Hallsworth** (2015) Water structure and chaotropy: their uses, abuses, and implications for biology. *Physical Chemistry Chemical Physics* 17(13): 8297-8305.
6. Bhaganna, P., Bielecka, A., Molinari, G. and **J. E. Hallsworth** (2016) Protective role of glycerol against benzene stress: insights from the *Pseudomonas putida* proteome. *Current Genetics* 62(2): 419-429.
7. Yakimov, M. M., Lo Cono, V., La Spada, G., Bortoluzzi, G., Messina, E., Smedile, F., Werner, J., Teeling, H., Borghini, M., Ferrer, M., Cray, J. A., **Hallsworth, J. E.**, Golyshin, P. N. and L. Giuliano (2015) Microbial community of seawater-brine interface of the deep-sea brine Lake *Kryos* as revealed by recovery of mRNA are active below the chaotropy limit of life. *Environmental Microbiology* 17(2): 364-382.
8. Cray, J. A., Stevenson, A., Ball, P., Bankar, S. B., Eleutherio, E. C. A., Ezeji, T. C., Singhal, R. S., Thevelein, J. M., Timson, D. J. and **J. E. Hallsworth** (2015a) Chaotropy: a key factor in product tolerance of biofuel-producing microorganisms. *Current Opinion in Biotechnology* 33: 228-259.
9. Stevenson, A., Burkhardt, J., Cockell, C. S., Cray, J. A., Dijksterhuis, J., Fox-Powell, M., Kee, T. P., Kminek, G., McGenity, T. J., Timmis, K. N., Timson, D. J., Voytek, M. A., Westall, F., Yakimov, M. M. and **J. E. Hallsworth**. (2015a) Multiplication of microbes below 0.690 water activity: implications for terrestrial and extraterrestrial life. *Environmental Microbiology* 17(2): 257-277.
10. Lievens, B., **Hallsworth J. E.**, Belgacem, Z. B., Pozo, M. I., Stevenson, A., Willems, K. A., and H. Jacquemyn (2015) Microbiology of sugar-rich environments: diversity, ecology, and system constraints. *Environmental Microbiology* 17(2): 278-298.
11. Cray, J. A., Houghton, J. D. R., Cooke, L. R. and **J. E. Hallsworth** (2015b) A simple inhibition coefficient for quantifying potency of biocontrol agents against plant-pathogenic fungi. *Biological Control* 81: 93-100.
12. Rangel, D. E. N., Alder-Rangel, A., Dadachova, E., Finlay, R. D., Kupiec, M., Dijksterhuis, J., Braga, G. U. L., Corrochano, L. M. and **J. E. Hallsworth** (2015c) Fungal stress biology: A

- preface to the *Fungal Stress Responses* special edition. 'Fungal Stress Responses' Special Issue. *Current Genetics* 61: 231-238.
13. Wyatt, T. T., van Leeuwen, M. R., Gerwig, G. J., Golovina, E. A., Hoekstra, F. A., Kuenstner, E. J., Palumbo, E. A., Snyder, N. L., Visagie, C., Verkennis, A., **Hallsworth, J. E.**, Kamerling, J. P., Wösten, H. A. B. and J. Dijksterhuis (2015b) Functionality and prevalence of trehalose-based oligosaccharides as novel compatible solutes in ascospores of *Neosartorya fischeri* (*Aspergillus fischeri*) and other fungi. *Environmental Microbiology* 17(2): 395-411.
 14. Rangel, D. E. N., Braga, G. U. L., Fernandes, É. K. K., Keyser, C. A., **Hallsworth, J. E.** and D. W. Roberts (2015a) Stress tolerance and virulence of insect-pathogenic fungi are determined by environmental conditions during conidial formation. *Current Genetics* 61: 483-404.
 15. Alves, F. L., Stevenson, A., Baxter, E., Gillion, J. L. M., Hejazi, F., Hayes, S., Morrison, I. E., Prior, B. A., McGenity, T. J., Rangel, D. E. N., Magan, N., Timmis, K. N. and **J. E. Hallsworth** (2015) Concomitant osmotic and chaotropicity-induced stresses in *Aspergillus wentii*: compatible solutes determine the biotic window. *Current Genetics* 61: 457-477.
 16. Wyatt, T. T., Golovina, E. A., van Leeuwen, M. R., **Hallsworth, J. E.**, Wösten, H. A. B. and J. Dijksterhuis (2015a) A decrease in bulk water and mannitol and accumulation of trehalose and trehalose-based oligosaccharides define a two-stage maturation process towards extreme stress resistance in ascospores of *Neosartorya fischeri* (*Aspergillus fischeri*). *Environmental Microbiology* 17(2): 283-294.
 17. Rummel, J. D., Beaty, D. W., Jones, M. A., Bakermans, C., Barlow, N. G., Boston, P. J., Chevrier, V. F., Clark, B. C., de Vera, J.-P. P., Gough, R. V., **Hallsworth, J. E.**, Head, J. W., Hipkin, V. J., Kieft, T. L., McEwen, A. S., Mellon, M. T., Mikucki, J. A., Nicholson, W. L., Omelon, C. R., Peterson, R., Roden, E. E., Sherwood Lollar, B., Tanaka, K. L., Viola, D. and J. J. Wray. (2014) A new analysis of Mars "Special Regions": Findings of the second MEPAG Special Regions Science Analysis Group (SR-SAG2). *Astrobiology* 14: 887-968. .
 18. Cray, J. A., Bell, A. N. W., Bhaganna, P., Mswaka, A. Y., Timson, D. J. and **J. E. Hallsworth** (2013a) The biology of habitat dominance; can microbes behave as weeds? *Microbial Biotechnology* 6: 453-492.
 19. Cray, J. A., Russell, J. T., Timson, D. J., Singhal, R. S. and **J. E. Hallsworth** (2013b) A universal measure of chaotropicity and kosmotropicity. *Environmental Microbiology* 15: 287-296.
 20. Chin, J. P., Megaw, J., Magill, C. L., Nowotarski, K., Williams, J. P., Bhaganna, P., Linton, M., Patterson, M. F., Underwood, G. J. C., Mswaka, A. Y. and **J. E. Hallsworth** (2010) Solutes determine the temperature windows for microbial survival and growth. *Proceedings of the National Academy of Sciences USA* 107: 7835-7840.

Jon Y. Takemoto



Dr. Jon Takemoto received a Ph.D. degree in microbiology (1973) from UCLA. He was Maria Moors Cabot Postdoctoral Research Fellow (1973-1974) and NIH Postdoctoral Fellow (1974) at Harvard University and then Assistant (1975-1980), Associate (1980-1985), and Full (1985 – present) Professor at Utah State University. He was Visiting Professor at, Freiburg Universitat (Germany) (1981-1982) and Visiting Professor in the School of Engineering, Hiroshima University (Japan) (1989-1990). He is recipient of a Alexander von Humboldt Fellowship (1981-1982), Long-Term Fellowship of the Japan Society for the Promotion of Science (1989-1990). Current

research topics are microbial natural products (cyclic lipodepsipeptides, antifungal aminoglycosides, and anti-inflammatory heme-derived metabolites).

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Súmula Curricular

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Publications: 182

Total Citations: 3642

H-index: 34

1. Education

Year	Title	Institution	Location
1973/74	Postdoctoral fellow- Biology	Harvard University	Cambridge, MA, USA
1973	Ph.D. - Microbiology	University of California	Los Angeles, CA, USA
1969	MSc. - Microbiology	California State University	Los Angeles, CA, USA
1967	BA - Bacteriology	University of California	Los Angeles, CA, USA

2. Professional experience

Year	Title	Institution	Location
1975-present	Professor of Biology	College of Science, Utah State University	Logan, UT, USA
2010-present	Adjunct Professor of Bio-Engineering	College of Engineering, Utah State University	Logan, UT, USA
2016-2017	Visiting Scholar	University of Southern California, Keck School of Medicine	Los Angeles, CA, USA
2003-2006	Department Head	Dept. of Biology, Utah State University	Logan, UT, USA
1988-1989	Visiting Professor	Dept. Fermentation Technology, Hiroshima University	Kagamiyama, Japan
1981-1982	Visiting Professor	Institut für Biologie	Freiburg, Germany

3. List of the most relevant recent publications

1. Kawasaki, Y., C. Nischwitz, M. M. Grilley, J. Jones, J. D. Brown and **J.Y. Takemoto**. 2016. Production and application of syringomycin E as an organic fungicide seed protectant against *Pythium damping-off*. (2016) *J Phytopathol*
2. Shrestha, S.K., Grilley, M., Anderson, T., Dhiman, C., Oblad, J., Chang, C.-W.T., Sorensen, K.N., and **Takemoto, J.Y.** (2015). In vitro antifungal synergy between amphiphilic aminoglycoside K20 and azoles against *Candida* species and *Cryptococcus neoformans*. *Medical Mycology*.
3. Fosso, M., AlFindee, M. N., Zhang, Q., Nziko, V.de., P, Kawasaki, Y., Shrestha, S.K., Bearss, J., Gregory, R., **Takemoto, J. Y.**, and Chang, C. W. (2015). Structure-activity relationships for antibacterial to antifungal conversion of kanamycin to amphiphilic analogues. *J Org Chem* 80:4398-
4. Napan, K.L., S. Zhang, T. Anderson, **J.Y. Takemoto** and J. Zhan. (2015). Three enzymes involved in the N-methylation and incorporation of the pradimicin sugar moieties. *Bioorg. Med. Chem. Lett.* 25:1288-1291
5. Wood, J.L., C. D. Miller, R. C. Sims, R. C., and **J. Y. Takemoto**. (2015). Biomass and phycocyanin production from cyanobacteriadominated biofilm reactors cultured using oilfield and natural gas extraction produced water. *Algal Research* 11:165-168.
6. Shrestha, S. C.-W. T. Chang, N. Meissner, J. Oblad, J. Shrestha, K. N. Sorensen, M. Grilley and **J.Y. Takemoto**. (2014). Antifungal amphiphilic aminoglycoside K20: Bioactivities and mechanism of action. *Frontiers Microbiol.* 5 (671).
7. Golo, P.S., D.R. Gardner, M.M. Grilley, **J.Y. Takemoto**, S.B. Krassnoff, M.S. Pires, E.K.K. Fernandes, V.R.E.P. Bittencourt, and D.W. Roberts. (2014). Production of destruxins from *Metarhizium* spp. fungi in artificial medium and in endophytically colonized cowpea plants. *PLoS One* 9(8):e 104946.
8. Shrestha, S.K., Chang, C.-W.T., Meissner, N., Oblad, J., Shrestha, J.P., Sorensen, K.N., Grilley, M.M., and **Takemoto, J.Y.** (2014). Antifungal amphiphilic aminoglycoside K20: bioactivities and mechanism of action. *Front. Microbiol.* 5.
9. Chang, C.W.T., and **Takemoto, J.Y.** (2014). Antifungal amphiphilic aminoglycosides. *Med. Chem. Comm.* 5, 1048-1057..
10. Ito, T., D. Chen, C.W.T. Chang, T. Kenmochi, T. Saito, S. Suzuki, and **J.Y. Takemoto** (2013) Mesobiliverdin-IX α enhances rat pancreatic islet yield and function. *Front. Pharmacol.* 4:50
11. **Takemoto, J.Y.** and D. Chen. 2013. Biliverdin from a Non-Animal Source, Patent No. US 8,455,222 B2, issued June 4, 2013, U.S. Patent and Trademark Office
12. Chen, D., J. D. Brown, Y. Kawasaki, J. Bommer, and **Jon Y. Takemoto**. (2012). Scalable production of biliverdin IX α by *Escherichia coli*. *BMC Biotechnol.* 12:89 DOI:10.1186/1472-6750-12-89

13. Bessonov, A., **J. Y. Takemoto**, and F.C. Simmel. 2012. Probing DNA - lipid membrane interactions with a lipopeptide nanopore. *ACS Nano* 6(4):3356-3363
14. Napan, K. L., J. Zeng, **J.Y. Takemoto**, and J. Zhan. 2012. A key cytochrome P450 hydroxylase in pradimicin biosynthesis. *Bioorg. Med. Chem. Lett.* 22: 606-609.

Laura Selbmann



Dr. Laura Selbmann completed her MSc degree in Biology at University “La Sapienza”, Rome, Italy. Her PhD thesis at the University of Tuscia was on fungal polysaccharides production and molecular characterization and their action as immunomodulators (Patent PCT/EP01/03100 US 2003/0186937). From 2000 to 2006, she did a post-doctoral fellow at University of Tuscia, Viterbo, Italy. From 2006 to 2015, Laura was a Senior Researcher; and since October 2015 an Associate Professor. Her research is focused on fungi from extreme environments, mainly Antarctic, biodiversity, evolution adaptation, survival, and stress resistance with implications in Astrobiology. She has described 20 new genera and 50 new fungal species from extreme environments. Laura has been responsible for the

Mycology Section of the Italian National Antarctic Museum since 2009. She was part of the Italian Antarctic expedition in both 2010 and 2015.

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Súmula Curricular

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Publication: 56

Total Citations: 1291

H-index: 19

1. Education

Year	Title	Institution	Location
2000/06	Post-doctoral fellow at	Università degli Studi della Tuscia	Viterbo, Italy
2000	PhD - Molecular and Biological Evolution	Università degli Studi della Tuscia	Viterbo, Italy
1993	MSc - Biology	Sapienza – Università di Roma	Rome, Italy

2. Professional experience

Year	Title	Institution	Location
2015-present	Associate Professor	Università degli Studi della Tuscia	Viterbo, Italy
2006-2015	Senior Researcher	Università degli Studi della Tuscia	Viterbo, Italy

1998	PhD Fellow	Nestlé Research Centre,	Lausanne, Switzerland
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3. List of the most relevant publication (up to 20 papers)

- Zucconi L, Onofri S, Cecchini C, Isola D, Ripa C, Fenice M, Madonna S, Reboleiro-Rivas, **Selbmann L** (2016). Mapping the lithic colonization at the boundaries of life in Northern Victoria Land, Antarctica. *Polar Biology* **39**: 91–102.
- Onofri S, Vera JP, Zucconi L, **Selbmann L**, Scalzi G, Venkateswaran KJ, Rabbow E, de la Torre R, Horneck G (2015). Survival of Antarctic Cryptoendolithic Fungi in Simulated Martian Conditions On-board the International Space Station. *Astrobiology* **15**: 1052–1059.
- Pacelli C, **Selbmann L**, Zucconi L, De Vera JPP, Rabbow E, Horneck G, de la Torre R, Onofri S (2015). BIOMEX experiment: Ultrastructural alterations, molecular damage and survival of the fungus *Cryomyces antarcticus* after the Experiment Verification Tests. *Origin of Life and Evolution of Biospheres* (In Press)
- Coleine C, Selbmann L, Ventura S, D'Acqui L, Onofri S, Zucconi L (2015). Fungal biodiversity in the Alpine Tarfala Valley. *Microorganisms* IN PRESS.
- Nascimento, MMF, **Selbmann L**, Sharifynia S, Al-Hatmi AMS, Voglmayr H, Vicente VA, Deng S, Kargl A, Tarek MAA, Al-Zahrani HS, Almaghrabi OA, De Hoog S. (2015). *Arthrocladium*, an unexpected human opportunist in Trichomeriaceae (Chaetothyriales). *Fungal Biology* DOI:10.1016/j.funbio.2015.08.018 · 2.14 Impact Factor
- Selbmann L**, Onofri S, Zucconi L, Isola D, Rottigni M, Ghiglione C, Piazza P, Alvaro MC, Schiaparelli S (2015). Distributional records of Antarctic fungi based on strains preserved in the Culture Collection of Fungi from Extreme Environments (CCFEE) Mycological Section associated with the Italian National Antarctic Museum (MNA). *MycKeys* **10**: 57–71.
- Isola D, Zucconi L, Onofri S, Caneva G, de Hoog GS, **Selbmann L** (2015) Extremotolerant rock inhabiting black fungi from Italian monumental sites. *Fungal Diversity* **76**: 75–96.
- Selbmann, Laura**, Laura Zucconi, Daniela Isola, Silvano Onofri (2015) Rock black fungi: excellence in the extremes. From the Antarctic to Space. *Current Genetics* **61**: 335–345.
- Turchetti B, **Selbmann L**, Blanchette AR, Di Mauro S, Zucconi L, Arenz BE, Buzzini P (2015). *Cryptococcus vaughanmartinae* sp. nov. and *Cryptococcus onofrii* sp. nov.: two new species isolated from worldwide cold environments. *Extremophiles* **19**: 149–159.
- Hubka V, Réblová M, Řehulka J, **Selbmann L**, Isola D, de Hoog GS, Kolařík M (2014). *Bradomyces* gen. nov. (Chaetothyriales, Trichomeriaceae), a new ascomycete genus accommodating poorly differentiated melanized fungi. *Antonie van Leeuwenhoek Journal of Microbiology* **106**: 979–992.
- Selbmann L**, Turchetti B, Yurkov A, Cecchini C, Zucconi L, Isola D, Buzzini B, Onofri S (2014). Description of *Taphrina antarctica* f.a. sp. nov., a new anamorphic ascomycetous yeast species associated with Antarctic endolithic microbial communities and transfer of four *Lalaria* species in the genus *Taphrina*. *Extremophiles* **18**: 707–721.
- E. Egidi, G.S. de Hoog, D. Isola, S. Onofri, W. Quaedvlieg, M. de Vries, G.J.M. Verkley, J.B. Stielow, L. Zucconi, **L. Selbmann** (2014). Phylogeny and taxonomy of meristematic rock-inhabiting black fungi in the dothidomycetes based on multi-locus phylogenies *Fungal Diversity* **65**: 127–165.
- Selbmann L**, Zucconi L, Onofri S, Cecchini C, Isola D, Turchetti B, Buzzini P. (2014). Taxonomic and phenotypic characterization of yeasts isolated from worldwide cold rock-associated habitats. *Fungal Biology* **118**: 61–71.
- Selbmann L**, de Hoog GS, Zucconi L, Isola D, Onofri S (2014) Black Yeasts From Cold Habitats. In: *Yeasts from cold Habitats*, Buzzini, P. Margesin, R. (Eds), Springer-Verlag, Berlin, pp 173–189. ISBN: 978-3-642-39680-9 (Print) 978-3-642-39681-6 (Online).
- Selbmann L**, Isola D, Egidi E, Zucconi L, Gueidan C, de Hoog GS, Onofri S (2014). Mountain tips as reservoirs for new rock-fungal entities: *Saxomyces* gen. nov. and four new species from the Alps. *Fungal Diversity* **65**: 167–182.

16. Isola D, **Selbmann L**, de Hoog GS, Fenice M, Onofri S, Prenafeta-Boldú FX, Zucconi L. (2013). Isolation and Screening of Black Fungi as Degraders of Volatile Aromatic Hydrocarbons. *Mycopathologia* **175**: 369–79
17. **Selbmann L**, Grube M, Onofri S, Isola D, Zucconi Z (2013). Antarctic Epilithic Lichens as Niches for Black Meristematic Fungi. *Biology* **2**: 784–797.
18. **Selbmann L**, Egidi E, Isola D, Onofri S, Zucconi Z, de Hoog GS, Chinaglia S, Testa L, Tosi S, Balestrazzi A, Lantieri A, Compagno R, Tigrini V, Varese G (2013). Biodiversity, evolution and adaptation of fungi in extreme environments. *Plant Biosystems*, vol 147, Issue 1, pages 237-246
19. **Selbmann L**, Isola D, Fenice F, Zucconi L, Sterflinger K, Onofri S (2012). Potential extinction of Antarctic endemic fungal species as a consequence of Global Warming. *Science of the Total Environment* **438**: 127–134.
20. de Vera JP, Böttger U, de la Torre Noetzel R, Sánchez FJ, Grunow D, Schmitz N, Lange C, Hübers HW, Billi D, Baqué M, Rettberg P, Rabbow E, Reitz G, Berger T, Möller R, Bohmeier M, Horneck G, Westall F, Jänchen J, Fritz J, Meyer C, Onofri S, **Selbmann L**, Zucconi L, Kozyrovska N, Leya T, Foing B, Demets R, Cockell CS, Bryce C, Wagner D, Serrano P, Howell GME, Joshi J, Huwe B, Ehrenfreund P, Elsaesser A, Ott S, Meessen J, Feyh N, Szewzyk U, Jaumann R, Spohn T (2012). Supporting Mars exploration: BIOMEX in Low Earth Orbit and further astrobiological studies on the Moon using Raman and PanCam technology. *Planetary and Space Science*.

Luis M. Corrochano



Luis M. Corrochano received his degree (1985) and the doctorate in Biology (1988) at the Universidad de Sevilla and has been a visiting scientist at Stanford University (USA) and at Syracuse University (USA). He has been a postdoctoral fellow at the Medical Research Council (Cambridge, UK) and at Stanford University (USA). He works on the regulation of gene transcription by light in fungi trying to understand how light can control fungal development, a simple model for the environmental regulation of development. He is leading the effort to sequence and analyze the genome of the fungus *Phycomyces blakesleeanus*.

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Súmula Curricular

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Publication: 47

Total Citations: 1062

H-index: 18

1. Education

Year	Title	Institution	Location
1988	Doctor in Biology (PhD)	Universidad de Sevilla	Seville, Spain
1985	MSc in Biology (Licenciado)	Universidad de Sevilla	Seville, Spain

2. Professional experience

Year	Title	Institution	Location
1998-present	Professor of Genetics	Universidad de Sevilla	Seville, Spain
1993, 96, 99	Postdoctoral Fellow	Stanford University	Stanford, CA, USA
1989-92	Postdoctoral Fellow	Medical Research Council,	Cambridge, England, UK
1986	Visiting Scientist	Syracuse University	Syracuse, NY, USA
1986-88	PhD Fellow	Universidad de Sevilla	Seville, Spain

3. List of the most relevant publication (up to 20 papers)

1. **L.M. Corrochano** et al. (2016) Expansion of signal transduction pathways in fungi by extensive genome duplication. **Curr Biol**
2. V.G. Tagua, M. Pausch, M. Eckel, G. Gutiérrez, A. Miralles-Durán, C. Sanz, A.P. Eslava, R. Pokorný, **L.M. Corrochano**, A. Batschauer. Fungal cryptochrome with DNA repair activity reveals an early stage in cryptochrome evolution. **Proc Natl Acad Sci USA**, 112, 15130-15135 (2015).
3. C. Ruger-Herreros, J. Rodríguez-Romero, R. Fernández-Barranco, M. Olmedo, R. Fischer, **L.M. Corrochano**, D. Cánovas. Regulation of conidiation by light in *Aspergillus nidulans*. **Genetics** 188, 809-822 (2011).
4. M. Olmedo, C. Ruger-Herreros, **L.M. Corrochano**. Regulation by blue light of the *fluffy* gene encoding a major regulator of conidiation in *Neurospora crassa*. **Genetics**, 184, 651-658 (2010).
5. C. Sanz, J. Rodríguez-Romero, A. Idnurm, J.M. Christie, J. Heitman, **L.M. Corrochano**, A.P. Eslava. *Phycomyces* MADB interacts with MADA to form the primary photoreceptor complex for fungal phototropism. **Proc Natl Acad Sci USA**, 106, 7095-7100 (2009).
6. L. Navarro-Sampedro, C. Yanofsky, **L.M. Corrochano**. A genetic selection for *Neurospora crassa* mutants altered in their light regulation of transcription. **Genetics** 178, 171-183 (2008).
7. Idnurm, J. Rodríguez-Romero, **L.M. Corrochano**, C. Sanz, E.A. Iturriaga, A.P. Eslava, J. Heitman. The *Phycomyces madA* gene encodes a blue-light photoreceptor for phototropism and other light responses. **Proc Natl Acad Sci USA**, 103, 4546-4551 (2006).
8. J. Rodríguez-Romero, **L.M. Corrochano**. Regulation by blue light and heat shock of gene transcription in the fungus *Phycomyces*: proteins required for photoinduction and mechanism for adaptation to light. **Mol Microbiol** 61, 1049-1059 (2006).
9. S. Brenner, **L.M. Corrochano**. Translocation events in the evolution of aminoacyl-tRNA synthetases. **Proc Natl Acad Sci USA**, 93, 8485-8489 (1996).
10. **L.M. Corrochano**, F.-R. Lauter, D.J. Ebbole, C. Yanofsky. Light and developmental regulation of the gene *con-10* of *Neurospora crassa*. **Dev Biol** 167, 190-200 (1995).

Luis F. Larrondo



Dr. Larrondo was born and raised in Santiago, Chile, where he received a Ph.D in Cellular and Molecular Biology at the P. Universidad Católica de Chile. With the support of the PEW foundation, he conducted his postdoctoral work at Dartmouth Medical School (USA) where he became interested in fungal functional genomics and circadian regulation. In 2009, he then went back to his home institution, in Chile, where he is now and associate professor and the director of the Millennium Nucleus for Fungal Integrative and Synthetic Biology. Currently, his lab works with different fungal systems studying the molecular mechanisms underlying biological oscillators, and assessing the impact that circadian clocks have on physiology and in host-pathogen interactions. Through optogenetics and synthetic biology-based

approaches, his lab is also exploring the design of new oscillatory circuits capable of starting and sustaining circadian rhythms.

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Súmula Curricular

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Publication: 54

Total Citations: 2594

H-index: 18

1. Education

Year	Title	Institution	Location
2009	Postdoc -Fungal Functional Genomics, Chronobiology	Dartmouth Medical School	Hanover, NH, USA

2003	Ph.D. - Cellular and Molecular Biology	Pontificia Universidad de Chile	Santiago, Chile
1999	MSc - Biochemistry	Pontificia Universidad de Chile	Santiago, Chile
1995	BS -Biochemistry	Pontificia Universidad de Chile	Santiago, Chile

2. Professional experience

Year	Title	Institution	
2009-Present	Professor	Pontificia Universidad de Chile	Santiago, Chile

3. List of the most relevant publication (up to 20 papers)

1. Feeney, K. A., Hansen, L. L., Putker, M., Olivares-Yañez, C., Day, J., Eades, L. J., **Larrondo, L. F.**, Hoyle, N. P., O'Neill, J. S., van Ooijen, G. (2016). Daily Magnesium Fluxes Regulate Cellular Timekeeping and Energy Balance. *Nature*.532(7599):375-9.
2. Hevia M. A., Canessa, P., **Larrondo, L. F.** (2016). Circadian clocks and the regulation of virulence in fungi: Getting up to speed. *Semin Cell Dev Biol*. S1084-9521(16)30082-9.
3. Montenegro-Montero, A., Canessa, P., **Larrondo, L. F.** (2015). Around the Fungal Clock: Recent Advances in the Molecular Study of Circadian Clocks in *Neurospora* and Other Fungi. *Advances in Genetics*. 92: 107-184.
4. Montenegro-Montero, A., **Larrondo, L.F.** (2016). In the Driver's Seat: The Case for Transcriptional Regulation and Coupling as Relevant Determinants of the Circadian Transcriptome and Proteome in Eukaryotes. *J Biol Rhythms*, 31(1):37-47.
5. - Hevia, M. A, Canessa, P., Müller-Esparza, H., **Larrondo, L. F.** (2015). A circadian oscillator in the fungus *Botrytis cinerea* regulates virulence when infecting *Arabidopsis thaliana*. *Proc Natl Acad Sci U S A*. 112: 8744-8749.
6. Montenegro-Montero, A., Goity, A., **Larrondo, L. F.** (2015). The bZIP transcription factor HAC-1 is involved in the unfolded protein response and is necessary for efficient plant cell wall deconstruction in *Neurospora crassa*. *PLoS One*.10(7):e0131415.
7. - Plaza, V., Lagues, Y., Carvajal, M., Pérez-García, L. A., Mora-Montes, H., de Groot, P., Canessa, P., **Larrondo, L. F.**, Castillo, L. C. (2015). The *Botrytis cinerea* *bcpmr1* gene encodes for a P-type Ca²⁺/Mn²⁺-ATPase that is necessary for proper cell wall glycan composition, cell wall integrity and virulence. *Fungal Genetics and Biology*. 76: 36-46.
8. **Larrondo, L.F.**, Baker, C.L., Olivares-Yañez, C., Loros, J.J., and Dunlap, J.C. (2015). Decoupling circadian clock protein turnover from circadian period determination. *Science*. 347(6221):1257277.
9. Weirauch, M. T., Yang, A., Albu, M., Cote, A., Montenegro-Montero, A., Drewe, P., Najafabadi, H. S., Lambert, S., Mann, I., Cook, K., Zheng, H., Goity, A., Bakel, H. V., Lozano, J., Galli, M., Lewsey, M., Huang, E., Mukherjee, T., Chen, X., Reece-Hoyes, J., Govindarajan, S., Shaulsky, G., Walhout, A., Bouget, F., Ratsch, G., **Larrondo, L. F.**, Ecker, J. R. and Hughes, T. R. (2014). Determination and Inference of Eukaryotic Transcription Factor Sequence Specificity. *Cell* 158:1431-1443.
10. -Hong, C.I., Zámboorszky, J., Baek, M., Labiscsak, L., Ju, K., Lee, H., **Larrondo, L.F.**, Goity, A., Chiong, H. S., Belden, W. J. and Csikász-Nagy, A. (2014). Circadian Rhythms Synchronize Mitosis in *Neurospora crassa*. *Proc Natl Acad Sci USA*. 111:1397-402.
11. Gooch, V. D., Johnson, A. E., Bourne, B. J., Nix, B. T., Maas, J. A., Fox, J., A. Loros, J. J., **Larrondo, L. F.**, Dunlap, J. C. (2014). A Kinetic Study of the Effects of Light on Circadian Rhythmicity of the *frq* Promoter of *Neurospora crassa*. *Journal of Biological Rhythms* 29:38-48.
12. Gooch, V. D., Johnson, A. E., **Larrondo, L. F.**, Loros, J.J., Dunlap, J. C. (2014). Bright to Dim Oscillatory Response of the *Neurospora* Circadian Oscillator. *Journal of Biological Rhythms* 29:49-59.
13. Canessa, P., Schumacher, J., Hevia, M.A., Tudzynski, P., **Larrondo, L.F.** (2013) Assessing the effects of light on differentiation and virulence of the plant pathogen *Botrytis cinerea*: characterization of the White Collar complex. *PLoS ONE* 8(12): e84223.
14. Hurley, J., **Larrondo, L. F.**, Loros, J. J., Dunlap, J. C. (2013). Conserved RNA helicase FRH acts Nonenzymatically to Support the Intrinsically Disordered *Neurospora* clock protein FRQ. *Mol*

- Cell*. 52(6):832-43.
15. Canessa, P. and **Larrondo, L. F.** (2013). Environmental responses and the control of iron homeostasis in fungal systems. *Applied Microbiology and Biotechnology*. 97(3):939-955.
 16. **Larrondo, L. F.**, Loros, J. J. and Dunlap, J. C. (2012). High-resolution spatiotemporal analysis of gene expression in real time: *in vivo* analysis of circadian rhythms in *Neurospora crassa* using a FREQUENCY-Luciferase translational reporter. *Fungal Genetics and Biology*. 49:681-683.
 17. **Larrondo, L. F.**, Colot, H., Baker, C. L., Loros, J. J., and Dunlap, J. C. (2009). Fungal Functional Genomics: Tunable Knockout-Knockin-expression and tagging strategies. *Eukaryotic Cell* 8:800-804.
 18. Martinez, D., Berka, R. M., Henrissat, B., Saloheimo, M., Arvas, M., Baker, S., Chapman, J., Chertkov, O., Coutinho, P., Cullen, D., Grigoriev, I. V., Harris, P., Jackson, M., Kubicek, C. P., Han, C. F., **Larrondo, L. F.**, Lopez de Leon, A., Magnuson, J., Merino, S., Nelson, B., Putnam, N., Robbertse, B., Salamov, A. A., Schmoll, M., Terry, A., Thayer, N., Westerholm-Parvinen, A., Yao, J., Xie, G., Richardson, P., Rokhsar, D. S. Lucas, S., Rubin, E. M., Ward, M., Brettin, T. S. (2008). Genome Sequence Analysis of the Cellulolytic Fungus *Trichoderma reesei* (syn. *Hypocrea jecorina*) Reveals a Surprisingly Limited Inventory of Carbohydrate Active Enzymes. *Nature Biotech.* 26: 553-560.
 19. Gooch, V*, Mehra, A*, **Larrondo, L. F.**, Fox, J., Touroutoudis, M., Loros, J. J. and Dunlap, J. C. (2008). Fully codon-optimized luciferase uncovers novel temperature characteristics of the *Neurospora* clock. *Eukaryotic Cell*. 7: 28-37.. (Cover article).
 20. Belden, W. J*, **Larrondo, L. F***, Froehlich, A. C*, Shi, M., Chen, C., Loros, J. J. and Dunlap, J. C. (2007). The *band* mutation in *Neurospora crassa* is a dominant allele of *ras-1* implicating RAS signaling in circadian output. *Genes & Dev.* 21: 1494-1505.

Márcia Eliana da Silva Ferreira



Dr. Márcia Ferreira graduated in Biochemical Pharmacy at the Faculty of Pharmaceutical Sciences of Ribeirão Preto (Universidade de São Paulo-USP). She did her Master's degree and Doctorate (Pharmacology), at the Faculty of Medicine of Ribeirão Preto (USP). Her Ph.D. thesis was on mechanisms involved in the development of tolerance induced by endotoxin pyrogenic *Escherichia.coli*, supervised by Irene Pelá. From 2003 to 2007, she was a post-doctoral fellow with Gustavo Goldman at the Faculty of Pharmaceutical Sciences of Ribeirão Preto (USP). Her research at that time focused on the identification of genes preferentially expressed in the pathogenic yeast phase of *Paracoccidioides brasiliensis*, using the Microarray technique. Dr. Márcia Ferreira established her own laboratory at the

Faculty of Pharmaceutical Sciences of Ribeirão Preto, USP, Brazil, in 2011.

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Súmula Curricular

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Publication: 25

Total Citations: 747

H-index: 14

CNPq Lattes: <http://lattes.cnpq.br/5160817149255422>

1. Education

Year	Title	Institution	Location
2007	Post Doctorate	Universidade de São Paulo	Ribeirão Preto, SP, Brazil
2003	PhD- Pharmacology	Universidade de São Paulo	Ribeirão Preto, SP, Brazil

1998	MS- Pharmacology	Universidade de São Paulo	Ribeirão Preto, SP, Brazil
1995	BS- Biochemical Pharmacy	Universidade de São Paulo	Ribeirão Preto, SP, Brazil

2. Professional experience

Year	Title	Institution	Location
2008-present	Professor	Universidade de São Paulo	Ribeirão Preto, SP, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Tobal JM; **Ferreira Balieiro MES**. (2014) Role of carbonic anhydrases in pathogenic microorganisms on *Aspergillus fumigatus*. Journal of Medical Microbiology, v.63, p.15-27.
2. Desjardins CA; Champion MD; Holder JW; Muszewska A; Goldberg J; Bailao AM; Brigido MM; **Ferreira MED**; Garcia AM; Grynberg M; *et al.* (2011) Comparative genomic analysis of human fungal pathogens causing paracoccidioidomycosis. Plos Genetics, v.7, e1002345.
3. Soriani FM; Malavazi I; Savoldi M; Espeso E; Dinamarco TM; Bernardes LAS; Ferreira MES; Goldman MHS; Goldman GH. (2010) Identification of possible targets of the *Aspergillus fumigatus* CRZ1 homologue, CrzA. BMC Microbiology, v.10, p.1-18.
4. Han K-H; Chun Y-H; Figueiredo BCP; Soriani FM; Savoldi M; Almeida A; Rodrigues F; Cairns CT; Bignell E; Tobal JM; Goldman MHS; Kim J-H; Bahn Y-S; Goldman GH; **Ferreira MES**. (2010) The conserved and divergent roles of carbonic anhydrases in the filamentous fungi *Aspergillus fumigatus* and *Aspergillus nidulans*. Molecular Microbiology, v. 75, p. 1372-1388.
5. Malavazi I; **da Silva Ferreira ME**; Soriani FM; Dinamarco TM; Savoldi M; Uyemura AS; Goldman MHS; Goldman GH. (2009) Phenotypic analysis of genes whose mRNA accumulation is dependent on calcineurin in *Aspergillus fumigatus*. Fungal Genetics and Biology, v. 46, p. 791-802.
6. Savoldi M; Malavazi I; Soriani FM; Capellaro JL; Kitamoto K; **Ferreira MES**; Goldman MHS; Goldman GH. (2008) Farnesol induces the transcriptional accumulation of the *Aspergillus nidulans* Apoptosis-Inducing Factor (AIF)-like mitochondrial oxidoreductase. Molecular Microbiology, v. 70, p. 44-59
7. Soriani FM; Malavazi I; **da Silva Ferreira ME**; Savoldi M; Kress MRVZ; Goldman MHS; Loss O; Bignell E; Goldman GH. (2008) Functional characterization of the *Aspergillus fumigatus* CRZ1 homologue, CrzA. Molecular Microbiology, v. 67, p.1274-1291.
8. de Gouvea PF; Soriani FM; Malavazi I; Savoldi M; Goldman MHS; Loss O; Bignell E; **Ferreira MES**; Goldman GH. (2008) Functional characterization of the *Aspergillus fumigatus* PHO80 homologue. Genetics and Biology, v.45, p.1135-1146.
9. Lima JF; Malavazi I; **da Silva Ferreira ME**; Savoldi M; Mota Jr. AO; Capellaro JL; Goldman MHS; Goldman GH. (2008) Functional characterization of the putative *Aspergillus nidulans* DNA damage binding protein homologue DdbA. Molecular Genetics and Genomics, v.279, p.239-253.
10. Mota Jr. AO; Malavazi I; Soriani FM; Heinekamp T; Jacobsen I; Brakhage AA; Savoldi M; Goldman MHS; **Ferreira MES**; Goldman GH. (2008) Molecular characterization of the *Aspergillus fumigatus* MCS-1 homologue, NcsA. Molecular Genetics and Genomics, v. 280, p. 483-495.
11. **Ferreira MES**; Heinekamp T; Härtl A; Brakhage AA; Semighini CP; Harris SD; Savoldi M; De Gouvêa PF; Goldman MHS; Goldman GH (2007) Functional characterization of the *Aspergillus fumigatus* calcineurin. Fungal Genetics and Biology, v. 44, p. 219-30.
12. Malavazi I; Savoldi M; **da Silva Ferreira ME**; Soriani FM; Bonato OS; Goldman MHS; Goldman GH. (2007) Transcriptome analysis of the *Aspergillus nidulans* AtmA (ATM, Ataxia-Telangiectasia mutated) null mutant. Molecular Microbiology, v. 66, p. 74-99.
13. **Ferreira MES**; Kress MRVZ; Savoldi M; Goldman MHS; Härtl A; Heinekamp T; Brakhage AA; Goldman GH. (2006) The *akuB*^{KU80} mutant deficient for nonhomologous end joining is a powerful tool for analyzing pathogenicity in *Aspergillus fumigatus*. Eukaryotic Cell, v. 5, p. 207-11.

14. **Ferreira MES**; Dos Reis Marques E; Malavazi I; **Torres I**; Restrepo A; Nunes LR; De Oliveira RC; Goldman MHS; Goldman GH. (2006) Transcriptome analysis and molecular studies on sulfur metabolism in the human pathogenic fungus *Paracoccidioides brasiliensis*. *Molecular Genetics and Genomics*, v. 276, p. 450-63.
15. **Ferreira MES**; Malavazi I; Savoldi M; Brakhage AA; Goldman MHS; Stanley Kim H; Nierman WC; Goldman GH. (2006) Transcriptome analysis of *Aspergillus fumigatus* exposed to voriconazole. *Current Genetics*, v. 50, p. 32-44.
16. **Ferreira ME**; Colombo AL; Paulsen I; Ren Q; Wortman J; Huang J; Goldman MH; Goldman GH. (2005) The ergosterol biosynthesis pathway, transporter genes, and azole resistance in *Aspergillus fumigatus*. *Medical Mycology*, v. 43, Suppl. 1, p. S313-9.
17. Nunes LR; de Oliveira RC; Leite DB; da Silva VS; Marques ER; **Ferreira MES**; Ribeiro DCD; Bernardes LAS; Goldman MHS; Puccia R; Travassos LR; Batista WL; Nóbrega MP; Nobrega FG; Yang DY; de Bragança Pereira CA; Goldman GH. (2005) Transcriptome analysis of *Paracoccidioides brasiliensis* cells undergoing mycelium-to-yeast transition. *Eukaryotic Cell*, v. 4, p. 2115-2128.
18. Goldman GH; **Ferreira MES**; Marques ED; Savoldi M; Perlin D; Park S; Martinez PCG; Goldman MHS; Colombo AL. (2004) Evaluation of fluconazole resistance mechanisms in *Candida albicans* clinical isolates from HIV-infected patients in Brazil. *Diagnostic Microbiology and Infectious Disease*, v. 50, p. 25-32.
19. Marques ER; **Ferreira MES**; Drummond RD; Felix JM; Menossi M; Savoldi M; Travassos LR; Puccia R; Batista WL; Carvalho KC; Goldman MHS; Goldman GH. (2004) Identification of genes preferentially expressed in the pathogenic yeast phase of *Paracoccidioides brasiliensis*, using suppression subtraction hybridization and differential macroarray analysis. *Molecular Genetics and Genomics*, v. 271, p. 667-677.
20. **Ferreira MES**; Capellaro JL; Dos Reis Marques E; Malavazi I; Perlin D; Park S; Anderson JB; Colombo AL; Arthington-Skaggs BA; Goldman MHS; Goldman GH. (2004) In vitro evolution of itraconazole resistance in *Aspergillus fumigatus* involves multiple mechanisms of resistance. *Antimicrobial Agents and Chemotherapy*, v. 48, p. 4405-13.

Maria Célia Bertolini



Dr. Maria Célia Bertolini graduated in Biological Sciences from the Universidade de São Paulo (USP) at Ribeirão Preto in 1975. Then she received her Master's degree in 1979 and her PhD in 1984 both in Biochemistry from the Faculty of Medicine, USP, Ribeirão Preto. Soon after her PhD was completed, she became a professor at Institute of Chemistry at the Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP) in Araraquara. Bertolini has experience in Biochemistry, Molecular Biology with an emphasis in the following subjects: molecular cloning, regulation of gene expression, heterologous protein expression, and structure-function

relationship of proteins using model organisms such as the fungus *Neurospora crassa* and the bacterium *Xanthomonas citri* subsp. *citri*.

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Súmula Curricular

ResearcherID: www.researcherid.com/rid/D-3654-2012

Publication: 49

Total Citations: 1015

H-index: 12

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1. Education

Year	Title	Institution	Location
1984	PhD in Biochemistry	Universidade de São Paulo	Ribeirão Preto, São Paulo, Brazil
1979	MSc in Biochemistry	Universidade de São Paulo	Ribeirão Preto, São Paulo, Brazil
1975	BSc - Biology	Universidade de São Paulo	Ribeirão Preto, São Paulo, Brazil

2. Professional experience

Year	Title	Institution	Location
1984-present	Professor	Universidade Estadual Paulista	Araraquara, São Paulo, Brazil

3. List of the most relevant publication (up to 20 papers)

1. Virgilio, S., Cupertino, F. B., Bernardes, N. E., Freitas, F. Z., Takeda, A. A. S., Fontes, M. R. M., **Bertolini, M. C.** (2016) Molecular components of the *Neurospora crassa* pH signaling pathway and their regulation by pH and by the PAC-3 transcription factor *PLoS ONE in press*
2. Freitas, F. Z., Virgilio, S., Cupertino, F. B., Kowbel, D. J., Fioramonte, M., Gozzo, F. C., Glass, N. L., **Bertolini, M. C.** (2016) The SEB-1 transcription factor binds to the STRE motif in *Neurospora crassa* and regulates a variety of cellular processes including the stress response. *G3, Genes, Genomes, Genetics* **6**, 1327-1343
3. Bernardes, N. E., Takeda, A. A. S., Dreyer, T. R. Freitas, F. Z., **Bertolini, M. C.**, Fontes, M. R. M. (2015) Structure of Importin- α from a filamentous fungus in complex with a classical nuclear localization signal. *PLoS ONE* **10**, e0128687
4. Cupertino, F. B., Virgilio, S., Freitas, F. Z., Candido, T. S., **Bertolini, M. C.** (2015) Regulation of glycogen metabolism by the CRE-1, RCO-1 and RCM-1 proteins in *Neurospora crassa*. The role of CRE-1 as the central transcriptional regulator. *Fungal Genet. Biol.* **77**, 82-94
5. Candido, T. S., Gonçalves, R. D., Freitas, F. Z., Cupertino, F. B., Felicio, A. P., Carvalho, A. C. G. V., **Bertolini, M. C.** (2014) A screening of *Neurospora crassa* mutant strains in protein kinases reveals SNF1 as a protein kinase likely phosphorylating glycogen synthase *Biochem. J.* **464**, 323-334
6. Castro, P. A., Chen, C., Almeida, R. S. C., Freitas, F. Z., **Bertolini, M. C.**, Morais, E. R., Brown, N. A., Ramalho, L. N. Z., Hagiwara, D., Mitchell, T. K., Goldman, G. H. (2014) ChIP-seq reveals a role for CrzA in the *Aspergillus fumigatus* high-osmolarity response (HOG) signaling pathway. *Mol. Microbiol.* **94**, 655-674
7. Bernardes, N. E., Takeda, A. A. S., **Bertolini, M. C.**, Fontes, M. R. M. (2014) Crystallization and preliminary X-ray crystallographic analysis of the Importin- α from *Neurospora crassa*. *Acta Crystallographica Section F*, **F70**, 501-504
8. Takeda, A. A. S., Freitas, F. Z., Magro, A. J., Bernardes, N. E., Fernandes, C. A. H., Gonçalves, R. D., **Bertolini, M. C.**, Fontes, M. R. M. (2013) Biophysical Characterization of the Recombinant Importin- α from *Neurospora crassa*. *Protein & Peptide Lett.*, **20**, 8-16
9. Cupertino, F. B.; Freitas, F. Z.; de Paula, R. M.; **Bertolini, M. C.** (2012) Ambient pH controls glycogen levels by regulating glycogen synthase gene expression in *Neurospora crassa*. New insights into the pH signaling pathway. *PLoS ONE*, **7**, e44258.
10. Dinamarco, T. M.; Freitas, F. Z.; Almeida, R. S.; Brown, N. A.; dos Reis, T. F.; Ramalho, L. N. Z.; Savoldi, M.; Goldman, M. H. S.; **Bertolini, M. C.**; Goldman, G. H. (2012) Functional characterization of an *Aspergillus fumigatus* calcium transporter (PmcA) essential for fungal infection. *PLoS ONE*, **7**, e37591.
11. **Bertolini, M. C.**; Freitas, F. Z.; de Paula, R. M.; Cupertino, F. B.; Gonçalves, R. D. (2012) Glycogen Metabolism Regulation in *Neurospora crassa*. In: Biocommunication of Fungi, G. Witzany (ed.), Springer, 2012.
12. Gonçalves, R. D.; Cupertino, F. B.; Freitas, F. Z.; Luchessi, A. D.; **Bertolini, M. C.** (2011) A genome-wide screen for *Neurospora crassa* transcription factors regulating glycogen metabolism. *Mol. Cell. Proteomics* **10**.
13. Hilario, E.; Medrano, J. F.; **Bertolini, M. C.**; Fan, L. (2011) Crystal structures of *Xanthomonas* small heat shock protein provide a structural basis for an active molecular chaperone oligomer. *J. Mol. Biol.* **408**: 74–86.
14. Freitas, F. Z.; de Paula, R. M.; Barbosa, L. C. B.; Terenzi, H. F.; **Bertolini, M. C.** (2010) cAMP signaling pathway controls glycogen metabolism in *Neurospora crassa* by regulating the glycogen synthase gene expression and phosphorylation. *Fungal Genet. Biol.* **47**: 43-52
15. Freitas, F. Z.; Chapeaurouge, A.; Perales, J.; **Bertolini, M. C.** (2008) A systematic approach to identify STRE-binding proteins of the *gsn* glycogen synthase gene promoter in *Neurospora crassa*. *Proteomics* **8**: 2052-2061.

16. Teixeira, E. C.; de Oliveira, J. C. F.; Novo, M. T. M.; **Bertolini, M. C.** (2008) The copper resistance genes *copAB* from *Xanthomonas axonopodis* pathovar citri. Inactivation of the *copA* gene results in copper sensitivity. *Microbiology* 154: 402-412.

Mario A. Fares



Dr. Mario A. Fares is a Professor in the Department of Genetics in TCD, Dublin (Ireland) and Researcher in the High Council for Scientific Investigation (CSIC) in Valencia (Spain). He graduated in Biology (1997) from the Universitat de València in his home country, Spain. After concluding a PhD on the molecular basis of the bacterial symbiosis with insects, he joined the Department of Genetics in Trinity College as a post-doctoral researcher in Bioinformatics. Mario joined the Department of Biology at the National University of Ireland Maynooth in 2003 as permanent Lecturer. In 2004, he was awarded the President of Ireland Young Researcher Award from the Science Foundation

Ireland. In 2006, Dr Fares secured a permanent lectureship in the Department of Genetics in TCD, and since 2010, he has been working under a double appointment by TCD in Ireland and CSIC in Spain. Since 2006, Dr Fares has submerged himself in the investigation of the evolutionary and molecular basis underlying the emergence of ecological adaptations in microbes and the origin of biological complexity, publishing more than 65 high-impact, international, peer-reviewed scientific articles.

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Súmula Curricular

ResearcherID: <http://www.researcherid.com/rid/L-7100-2016>
 Publication: 63
 Total Citations: 1443
 H-index: 22

1. Education

Year	Title	Institution	Location
2002	Post-doctoral researcher	University of Dublin, Trinity College Dublin	Dublin, Ireland
1992	PhD – Microbial Genetics	Universitat de València	Valencia, Spain
1985	BA – Microbial Genetics	Universitat de València	Valencia, Spain

2. Professional experience

Year	Title	Institution	Location
2010-present	Researcher	High Council of Research Investigations	Valencia, Spain
2010-present	Professor	University of Dublin, Trinity College Dublin	Dublin, Ireland
2006-present	Lecturer	University of Dublin, Trinity College Dublin	Dublin, Ireland
2003-2006	Lecturer	National University of Ireland	Maynooth, Ireland

3. List of the most relevant publication (up to 20 papers)

1. Aguilar-Rodríguez J, Sabater-Muñoz B, Montagud-Martínez R, Berlanga V, Alvarez-Ponce D, Wagner A, **Fares MA**. (2016) The molecular chaperone DnaK is a source of mutational robustness. *Genome Biol Evol*. 2016 Aug 6. pii: evw176.
2. Sabater-Muñoz B, Prats-Escriche M, Montagud-Martínez R, López-Cerdán A, Toft C, Aguilar-Rodríguez J, Wagner A, **Fares MA**. (2015) Fitness Trade-Offs Determine the Role of the Molecular Chaperonin GroEL in Buffering Mutations. *Molecular Biology and Evolution* 32(10):2681-93.
3. **Fares MA**. (2015) The origins of mutational robustness. *Trends in Genetics* 31(7):373-81.
4. **Fares MA**. (2015) Survival and innovation: The role of mutational robustness in evolution. *Biochimie* 119:254-61.
5. Keane OM, Toft C, Carretero-Paulet L, Jones GW, **Fares MA**. (2014) Preservation of genetic and regulatory robustness in ancient gene duplicates of *Saccharomyces cerevisiae*. *Genome Research* 24(11):1830-41.
6. Carretero-Paulet L, Albert VA, **Fares MA**. (2013) Molecular evolutionary mechanisms driving functional diversification of the HSP90A family of heat shock proteins in eukaryotes. *Molecular Biology and Evolution* 30(9):2035-43.
7. **Fares MA**, Keane OM, Toft C, Carretero-Paulet L, Jones GW. (2013) The roles of whole-genome and small-scale duplications in the functional specialization of *Saccharomyces cerevisiae* genes. *PLoS Genetics* 9(1):e1003176.
8. Alvarez-Ponce D, **Fares MA**. (2012) Evolutionary rate and duplicability in the *Arabidopsis thaliana* protein-protein interaction network. *Genome Biology and Evolution* 4(12):1263-74.
9. Carretero-Paulet L, **Fares MA**. (2012) Evolutionary dynamics and functional specialization of plant paralogs formed by whole and small-scale genome duplications. *Molecular Biology and Evolution* 29(11):3541-51.
10. Rodrigo G, **Fares MA**. (2012) Describing the structural robustness landscape of bacterial small RNAs. *BMC Evolutionary Biology* 13:12:52.
11. Jiang X, **Fares MA**. (2011) Functional diversification of the twin-arginine translocation pathway mediates the emergence of novel ecological adaptations. *Molecular Biology and Evolution* 28(11):3183-93.
12. Williams TA, **Fares MA**. (2010) The effect of chaperonin buffering on protein evolution. *Genome Biology and Evolution* 2:609-19.
13. Toft C, **Fares MA**. (2010) Structural calibration of the rates of amino acid evolution in a search for Darwin in drifting biological systems. *Molecular Biology and Evolution* 27(10):2375-85.
14. Williams TA, Codoñer FM, Toft C, **Fares MA**. (2010) Two chaperonin systems in bacterial genomes with distinct ecological roles. *Trends in Genetics* 26(2):47-51.
15. Toft C, Williams TA, **Fares MA**. (2009) Genome-wide functional divergence after the symbiosis of proteobacteria with insects unraveled through a novel computational approach. *PLoS Computational Biology* 5(4):e1000344.
16. Toft C, **Fares MA**. (2009) Selection for translational robustness in *Buchnera aphidicola*, endosymbiotic bacteria of aphids. *Molecular Biology and Evolution* 26(4):743-51.

17. Toft C, **Fares MA.** (2008) The evolution of the flagellar assembly pathway in endosymbiotic bacterial genomes. *Molecular Biology and Evolution* 25(9):2069-76.
18. Ruano-Rubio V, **Fares MA.** (2007) Artfactual phylogenies caused by correlated distribution of substitution rates among sites and lineages: the good, the bad, and the ugly. *Systematic Biology* 56(1):68-82.
19. **Fares MA,** Travers SA. (2006) A novel method for detecting intramolecular coevolution: adding a further dimension to selective constraints analyses. *Genetics* 173(1):9-23.
20. Fares MA, Ruiz-González MX, Moya A, Elena SF, Barrio E. (2002) Endosymbiotic bacteria: groEL buffers against deleterious mutations. *Nature* 23;417(6887):398.

Michelle Momany



Dr. Michelle Momany earned her B.A. in Microbiology from the University of Texas (UT) at Austin, USA. Her Ph.D. was in medical mycology with Paul Szaniszlo at UT, Austin and her postdoc was with John Hamer in fungal genetics at Purdue University, USA. She is Chair of the Aspergillus Genomics Research Policy Committee and past Chair of the Gordon Research Conference on Cellular and Molecular Fungal Biology and of the 28th Fungal Genetics Conference at Asilomar. She is an American Association for the Advancement of Science Fellow, a National Academies Education Fellow in the Life Sciences, and professor at the University of Georgia, USA. Michelle's research focuses on early development, polarity, secretion and the cytoskeleton, especially the septin cytoskeleton. She cloned the first septin from a filamentous fungus and her lab was among the first to show commonalities in septins from animals and fungi. She discovered the first noncore septin, the prototype for

many septins not found in budding yeast or animals. Recently her interest in early development has led to work on conidiation and dormancy.

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Súmula Curricular

ResearcherID: <http://www.researcherid.com/rid/L-2327-2016>

Publication: 86

Total Citations: 1581

H-index: 20

1. Education

Year	Title	Institution	Location
1992/96	Postdoctoral Researcher - Biological Sciences	Purdue University	Lafayette, IN, USA
1992	PhD - Microbiology	University of Texas at Austin	Austin, Texas, USA

1985	BA - Microbiology	University of Texas at Austin	Austin, Texas, USA
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2. Professional experience

Year	Title	Institution	Location
1996-present	Professor- Plant Biology	University of Georgia	Athens, GA, USA
2015	Visiting Researcher	Manchester Fungal Infection Group	Manchester, England, UK
2008-2014	Department Head- Plant Biology	University of Georgia	Athens, GA, USA

3. List of the most relevant recent publications

- Oda, K., Bignell, E.M., Kang, S. E. and **M. Momany**. 2016. Transcript levels of the *Aspergillus fumigatus* Cdc42 module, polarisome, and septin genes show little change from dormancy to polarity establishment. *Medical Mycology*, in press.
- Henriet SS, van de Sande WW, Lee MJ, Simonetti E, **Momany M**, Verweij PE, Rijs AJ, Ferwerda G, Sheppard DC, de Jonge MI, Warris A. 2016. Decreased Cell Wall Galactosaminogalactan in *Aspergillus nidulans* Mediates Dysregulated Inflammation in the Chronic Granulomatous Disease Host. *J Interferon Cytokine Res.*, in press.
- Hernández-Rodríguez Y., Masuo S., Johnson D., Orlando R., Smith A., Couto-Rodriguez M., and **M. Momany**. 2014. Distinct Septin Heteropolymers Co-exist During Multicellular Development in the Filamentous Fungus *Aspergillus nidulans*. *PLoS ONE* 9(3): e92819. doi:10.1371/journal.pone.0092819.
- Leal, S.M. Jr, Vareechon, C., Cowden, S., Cobb, B.A., Latgé J.P., **Momany, M.**, and E. Pearlman. 2012. Fungal antioxidant pathways promote survival against neutrophils during infection. *Journal of Clinical Investigation* 122: 2482-2498.
- Suh M.J., Fedorova. N.D., Cagas. S.E., Hastings, S., Fleischmann, R.D., Peterson, S.N., Perlin, D.S., Nierman, W.C., Pieper, R. and **M. Momany**. 2012. Development stage-specific proteomic profiling uncovers small, lineage specific proteins most abundant in the *Aspergillus fumigatus* conidial proteome. *Proteome Science* 10:30.

Monika Schmoll



Dr. Monika Schmoll did her Ph. D. on the topic of “Regulation of cellulase expression and signal transduction in the filamentous fungus *Hypocrea jecorina* (*Trichoderma reesei*)” at the Vienna University of Technology. She gained postdoctoral experience and built her own group at the Vienna University of Technology. Since 2012, Dr. Schmoll has been a Senior Scientist and group leader at the Austrian Institute of Technology (AIT) in Tulln, Austria. In March 2013, Dr. Schmoll completed her habilitation (postdoctoral lecturing qualification) at the Vienna University of Technology in the field of “Molecular Genetics and Genomics”. Monika’s primary field of research is the interconnection between light response, sexual development, and metabolism, with an emphasis on cellulase gene expression in the filamentous fungus

Trichoderma reesei. Her work with *Trichoderma* is complemented by contributions to genome annotation of several fungi (*Trichoderma* spp., *Aspergillus nidulans*, *Postia placenta*, *Ceriporiopsis subvermispota*, *Phlebiopsis gigantea*), especially in the field of signal transduction.

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Súmula Curricular

ResearcherID: <http://www.researcherid.com/rid/I-6541-2016>

Publication: 36

Total Citations: 1114

H-index: 18

1. Education

Year	Title	Institution	
2004/06	Postdoctoral Studies	Technische Universität Wien	Vienna, Austria
2003	PhD	Technische Universität Wien	Vienna, Austria
1999	MSc	Technische Universität Wien	Vienna, Austria

2. Professional experience

Year	Title	Institution	Location
2012-Present	Senior Scientist	Technische Universität Wien	Vienna, Austria
2007-2012	Group Research Leader in Gene Technology & Applied Biochemistry	Technische Universität Wien	Vienna, Austria
2008	Guest Researcher	University of California	Berkeley, CA, USA
2005	Guest Researcher	University degli Studi di Sassari	Sassari, Italy
2005	Guest Researcher	University of Szeged	Szeged, Hungary
2003	Guest Researcher	Sapienza – Università di Roma	Rome, Italy

3. List of the most relevant publication (up to 20 papers)

1. **Monika Schmoll**, Christoph Dattenböck, Nohemí Carreras-Villaseñor, Artemio Mendoza-Mendoza, Doris Tisch, Mario Ivan Alemán, Scott E. Baker, Christopher Brown, Mayte Guadalup Cervantes-Badillo, José Cetz, Gema Rosa Cristobal-Mondragon, Luis Delaye, Edgardo Ulises Esquivel-Naranjo, Alexa Frischmann, Jose de Jesus Gallardo-Negrete, Monica García-Esquivel, Elida Yazmin Gomez-Rodriguez, David R. Greenwood, Miguel Hernández-Oñate, Joanna S. Kruszevska, Robert Lawry, Hector M Mora-Montes, Tania Muñoz-Centeno, Maria Fernanda Nieto-Jacobo, Guillermo Nogueira Lopez, Vianey Olmedo-Monfil, Macario Osorio-Concepcion, Sebastian Piłsyk, Kyle Pomraning, Aroa Rodriguez-Iglesias, Maria Teresa Rosales-Saavedra, J. Alejandro Sánchez-Arreguín, Verena Seidl-Seiboth, Alison Stewart, Edith Elena Uresti-Rivera, Chih-Li Wang, Ting-Fang Wang, Susanne Zeilinger, Sergio Casas-Flores, Alfredo Herrera-Estrella (2016) The genomes of three uneven siblings – footprints of the lifestyle of three *Trichoderma* species, *Microbiol Mol Biol Reviews*, Vol. 80 (1): 205-327
2. **Schmoll M.** and Dattenböck C., eds (2016) Gene Expression Systems in Fungi: Advancements and Applications; Fungal Biology Book Series, Series Eds: Gupta V. C. and Tuohy, M. G.; Springer, ISBN 978-3-319-27949-7.
3. Bazafkan H, Dattenböck C, Böhmendorfer S, Tisch D, Stappler E, **Schmoll M.** (2015) Mating type dependent partner sensing as mediated by VEL1 in *Trichoderma reesei*. *Mol Microbiol.* Jun;96(6):1103-18.
4. Jameela Lokhandwala, Hilary C. Hopkins, Aroa Rodriguez-Iglesias, Christoph Dattenböck, **Monika Schmoll** and Brian D. Zoltowski (2015) A fungal LOV protein has evolved to integrate blue-light and oxidative stress; *Structure* 23, 1-10
5. Tisch D., Schuster A. and **Schmoll M.** (2014) Crossroads between light response and nutrient signalling: ENV1 and PhLP1 act as mutual regulatory pair in *Trichoderma reesei*. *BMC Genomics* 15 (1): 425
6. Tisch, D. and **Schmoll M.** (2013) Targets of light signalling in *Trichoderma reesei*. *BMC Genomics* 14: 657
7. **Schmoll M.**, Tian C, Sun J, Tisch D, Glass NL (2012) Unravelling the molecular basis for light modulated cellulase gene expression - the role of photoreceptors in *Neurospora crassa*. *BMC Genomics* 13: 127
8. Schuster A, Bruno KS, Collett JR, Baker SE, Seiboth B, Kubicek CP, **Schmoll M** (2012) A versatile toolkit for high throughput functional genomics with *Trichoderma reesei*. *Biotechnol Biofuels* 5: 1
9. Seibel C, Tisch D, Kubicek CP, **Schmoll M** (2012) ENVOY is a major determinant in regulation of sexual development in *Hypocrea jecorina* (*Trichoderma reesei*). *Eukaryot Cell* 11: 885-895
10. Tisch D, Kubicek CP, **Schmoll M** (2011) The phosphatidylinositol-like protein PhLP1 impacts regulation of glycoside hydrolases and light response in *Trichoderma reesei*. *BMC Genomics* 12: 613
11. **Schmoll M.**, Seibel C., Tisch D., Dorrer M. and Kubicek C. P. (2010) A Novel Class of Peptide Pheromone Precursors in Ascomycetous Fungi, *Molecular Microbiology*, 2010 Sep. 77(6): 1483-501
12. **Schmoll M.**, Kotlowski, C., Seibel, C., Liebmann B., Kubicek, C. P. (2010) Recombinant production of an *Aspergillus nidulans* class I hydrophobin, (DewA) in *Hypocrea jecorina*

- (*Trichoderma reesei*) is promoter-dependent, *Applied Microbiology and Biotechnology*, 88(1):95-103.
13. Castellanos, F., **Schmoll, M.**, Martínez, P., Tisch, D., Kubicek, C. P., Herrera-Estrella, A., Esquivel-Naranjo, E. U. (2010) Crucial factors of the light perception machinery and their impact on growth and cellulase gene transcription in *Trichoderma reesei*. *Fungal Genet Biol*, May; 47(5): 468 - 76
 14. **Schmoll, M.**, Esquivel-Naranjo, E. U. and Herrera-Estrella, A. (2010) *Trichoderma* in the light of day – physiology and development. Invited review, *Fungal Genetics and Biology*, Nov. 47(11): 909 - 916.
 15. Seibel, C., Gremel, G., do Nascimento Silva, R., Schuster, A., Kubicek, C.P. & **Schmoll, M.** (2009) Light-dependent roles of the G-protein alpha subunit GNA1 of *Hypocrea jecorina* (anamorph *Trichoderma reesei*). *BMC Biology* 7: 58.
 16. Seidl, V., Seibel, C., Kubicek, C. P., & **Schmoll, M.** (2009) Sexual development in the industrial workhorse *Trichoderma reesei*. *Proceedings of the National Academy of Sciences of the United States of America* 106, 13909-13914.
 17. **Schmoll, M.**, Schuster, A., Silva Rdo, N., & Kubicek, C. P. (2009) The G-alpha protein GNA3 of *Hypocrea jecorina* (Anamorph *Trichoderma reesei*) regulates cellulase gene expression in the presence of light. *Eukaryotic Cell* 8, 410-420.
 18. Gremel, G., Dorrer, M., & **Schmoll, M.** (2008) Sulphur metabolism and cellulase gene expression are connected processes in the filamentous fungus *Hypocrea jecorina* (anamorph *Trichoderma reesei*). *BMC Microbiology* 8, 174.
 19. Martínez, D., Berka, R.M., Henrissat, B., Saloheimo, M., Arvas, M., Baker, S.E., Chapman, J., Chertkov, O., Coutinho, P.M., Cullen, D., Danchin, E.G., Grigoriev, I.V., Harris, P., Jackson, M., Kubicek, C.P., Han, C.S., Ho, I., Larrondo, L.F., de Leon, A.L., Magnuson, J.K., Merino, S., Misra, M., Nelson, B., Putnam, N., Robbertse, B., Salamov, A.A., **Schmoll, M.**, Terry, A., Thayer, N., Westerholm-Parvinen, A., Schoch, C.L., Yao, J., Barabote, R., Nelson, M.A., Detter, C., Bruce, D., Kuske, C.R., Xie, G., Richardson, P., Rokhsar, D.S., Lucas, S.M., Rubin, E.M., Dunn-Coleman, N., Ward, M., and Brettin, T.S. (2008) Genome sequencing and analysis of the biomass-degrading fungus *Trichoderma reesei* (syn. *Hypocrea jecorina*). *Nature Biotechnology* 26, 553-560.
 20. **Schmoll, M.**, Franchi, L., & Kubicek, C. P. (2005) Envoy, a PAS/LOV domain protein of *Hypocrea jecorina* (anamorph *Trichoderma reesei*), modulates cellulase gene transcription in response to light. *Eukaryotic Cell* 4, 1998-2007.

Natalia Requena



Dr. Natalia Sanchez Requena received undergraduate and graduate training at the University of Granada, Spain. Her PhD thesis was on “Restoration of degraded Ecosystems by the use of microorganisms”, supervised by Jose Miguel Barea. From 1997 to 2000, she was a post-doctoral fellow with Philipp Franken at the Max Planck Institute for terrestrial Microbiology, Marburg, Germany. Her research then focused on molecular analyses of the arbuscular mycorrhiza symbiosis. Natalia established her own research group in 2001 at the University of Tübingen, where she obtained her Habilitation for Microbiology and Botany. She then was awarded with a DFG Heisenberg Stipendium and moved to the University of Karlsruhe. She was appointed as associate professor at the Karlsruhe Institute of Technology (KIT) in 2012. Her research currently focuses on the molecular dissection of plant-microbial interactions, particularly on the arbuscular mycorrhiza symbiosis.

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Súmula Curricular

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 Publication: 36
 Total Citations: 1651
 H-index: 23

1. Education

Year	Title	Institution	Location
1997	Postdoctoral Fellow	Max Planck Institute for Terrestrial Microbiology	Marburg, Germany
1996	PhD	Estación Experimental del Zaidin	Granada, Spain
1992	MSc - Soil	Estación Experimental del Zaidin	Granada, Spain

	Microbiology		
1990	BS-Biology	Universidad de Granada	Granada, Spain

2. Professional experience

Year	Title	Institution	
2005- Present	Research Professor	Institute of Applied Biosciences, University of Karlsruhe	Karlsruhe, Germany
2000- 2005	Group leader	Botanical Institute -University of Tübingen, Germany	Tübingen, Germany

3. List of the most relevant publication (up to 20 papers)

1. Betz R, Walter S, and **Requena N** (2016) Alternative splicing - an elegant way to diversify the function of repeat containing effector proteins? Commentary in *New Phytologist* (in press)
2. Heck C, Kuhn H, Heidt S, Walter S, Rieger N, and **Requena N** (2016) Symbiotic fungi control plant root cortex development through the novel GRAS transcription factor MIG1. *Current Biology* 10.1016/j.cub.2016.07.059 (in press)
3. Manck-Götzenberger J and **Requena N** (2016) Arbuscular mycorrhiza symbiosis induces a major transcriptional reprogramming of potato SWEET sugar transporters. *Frontiers in Plant Science*
4. **Requena N** and Fischer R (2014) Breaking down walls to live in harmony. *eLife Insight on Moebius et al. eLife3:e03007.*
5. Doehlemann G, **Requena N**, Schaefer P, Brunner F, O'Connell R and Parker J (2014) Reprogramming of plant cells by filamentous plant-colonizing microbes. *New Phytol.*, Tisserant et al. (2013) Genome of an arbuscular mycorrhizal fungus provides insight into the oldest plant symbiosis. *PNAS USA*,
6. Rech S, Heidt S and **Requena N**. (2013) A tandem Kunitz protease inhibitor (KPI106)-serine carboxypeptidase (SCP1) controls mycorrhiza establishment and arbuscule development in *Medicago truncatula*. *Plant J.* 75:711-725
7. Tisserant E, Kohler A, Dozolme-Seddas P, Balestrini R, Benabdellah K, Colard A, Croll D, Da Silva C, Gomez SK, Koul R, Ferrol N, Fiorilli V, Formey D, Franken P, Helber N, Hijri M, Lanfranco L, Lindquist E, Liu Y, Malbreil M, Morin E, Poulain J, Shapiro H, van Tuinen D, Waschke A, Azcón-Aguilar C, Bécard G, Bonfante P, Harrison MJ, Küster H, Lammers P, Paszkowski U, **Requena N**, Rensing SA, Roux C, Sanders IR, Shachar-Hill Y, Tuskan G, Young JP, Gianinazzi-Pearson V, Martin F. (2012) The transcriptome of the arbuscular mycorrhizal fungus *Glomus intraradices* (DAOM 197198) reveals functional tradeoffs in an obligate symbiont. *New Phytol.* 193: 755-769
8. Helber N., Wippel K., Sauer N., Schaarschmidt, S., Hause B., , and **Requena N**. (2011) A versatile monosaccharide transporter that operates in the arbuscular mycorrhizal fungus *Glomus* sp. is crucial for the symbiotic relationship with plants. *Plant Cell* 23: 3812-3823.
9. Klopffholz S., Kuhn H. and **Requena N**. (2011) A secreted fungal effector of *Glomus intraradices* promotes symbiotic biotroph. *Curr. Biol.* 21: 1204-1209
10. Bonfante P. and **Requena N**. (2011) Dating in the dark: how roots respond to fungal signals to establish arbuscular mycorrhizal symbiosis. *Curr. Opin. Plant Biol.*
11. Kuhn H., Küster H., **Requena N**. (2010) Membrane Steroid Binding Protein 1 induced by a diffusible fungal signal is critical for mycorrhization in *Medicago truncatula*. *New Phytol.* 185: 593-5.
12. Heupel S., Roser B., Kuhn H., Lebrun M-H., Villalba F., **Requena N**. (2010) Erl1 a novel ERA-like GTPase from *Magnaporthe oryzae* is required for full root virulence and is conserved in the mutualistic symbiont *Glomus intraradices*. *Mol Plant Microbe Interact.* 23: 67-81.
13. Martin F., Gianinazzi-Pearson V., Hijri M., Lammers P., **Requena N.**, Sanders I.R., Shachar-Hill Y., Shapiro H., Tuskan G.A., Young J.P. (2008) The long hard road to a completed *Glomus intraradices* genome. *New Phytol.* 180: 747-750.
14. Helber, N. and **Requena N**. (2008) Expression of the fluorescence markers DsRed and GFP fused to a nuclear localization signal in the arbuscular mycorrhizal fungus *Glomus intraradices*, *New Phytologist.* 177: 537-548.

15. Ocón A., Hampp R. and **Requena N.** (2007) Trehalose turnover during abiotic stress in arbuscular mycorrhizal fungi. *New Phytologist* 174: 879-891.
16. Kuster H., Becker A., Firnhaber C., Hohnjec N., Manthey K., Perlick A.M., Bekel T., Dondrup M., Henckel K., Goesmann A., Meyer F., Wipf D., **Requena N.**, Hildebrandt U., Hampp R., Nehls U., Krajinski F., Franken P., Puhler A. (2007) Development of bioinformatic tools to support EST-sequencing, in silico- and microarray-based transcriptome profiling in mycorrhizal symbioses. *Phytochemistry* 38: 19-32.
17. **Requena N.**, Serrano E., Ocon A., Breuninger M. (2007) Plant signals and fungal perception during arbuscular mycorrhiza establishment. *Phytochemistry*, 68:33-40.
18. Cruz C., Egsgaard H., Trujillo C., Ambus P., **Requena N.**, Martins-Loução M.A. and Jakobsen I. (2007) Enzymatic Evidence for the key role of arginine in nitrogen translocation by arbuscular mycorrhiza fungi, *Plant Physiol.* 144: 782-792.
19. **Requena N.** (2005) Measuring quality of service: Phosphate "a la carte" by arbuscular mycorrhizal fungi. *New Phytologist* 168: 268-271.
20. **Requena N.** (2005) Molekulare Analyse der fruehen Stadien der Arbuskulaeren Mycorrhizasymbiose. *Biospektrum Sonderaufgabe*, 11 Jahrgang, pp. 539.

Nicolás Pedrini



Dr. Nicolás Pedrini is both Chemist (2000) and Biochemist (2001) for the National University of La Plata (UNLP). He received his PhD (2006) in the same institution, working on fungal enzymes involved in insect hydrocarbon degradation. Dr. Pedrini has visited as posdoc the laboratory of Nemat O. Keyhani at the University of Florida (2007 - 2009), funded by the National Research Council of Argentina (CONICET) and Fulbright Commission. He received the Chris Lomer Memorial Award (Society for Invertebrate Pathology) in 2008. He has published 27 scientific articles. Dr. Pedrini is currently a Professor in Biochemistry and Molecular Biology at Medicine School (UNLP) and a Research

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Súmula Curricular

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Total Articles in Publication List: 21
 Articles With Citation Data: 1
 Sum of the Times Cited: 5
 Average Citations per Article: 5.00
 h-index: 1

1. Education

Year	Title	Institution	Location
2007	Postdoctoral Fellow	Universidad Nacional de La Plata	La Plata, Buenos Aires Province, Argentina
2006	PhD - Biochemistry	Universidad Nacional de La Plata	La Plata, Buenos Aires Province, Argentina
2001	BSc - Biochemistry	Universidad Nacional de La Plata	La Plata, Buenos Aires Province, Argentina

2000	BSc - Chemistry	Universidad Nacional de La Plata	La Plata, Buenos Aires Province, Argentina
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2. Professional experience

	Title	Institution	Location
2009 - present	Professor & Researcher in Biochemistry and Molecular Biology	Universidad Nacional de La Plata	La Plata, Buenos Aires Province, Argentina
2009	Visiting Scientist	University of Florida	Gainesville, Florida, USA

3. List of the most relevant publication (up to 20 papers)

- Schama R., **N. Pedrini***, M.P Juárez, D.R. Nelson, A.Q. Torres, D. Valle, R.D. Mesquita. (2016) *Rhodnius prolixus* supergene families of enzymes potentially associated with insecticide resistance. *Insect Biochemistry and Molecular Biology* 69: 91–104.
- Mesquita, R.D. Vionette-Amaral, R.J. Lowenberger, C.; Rivera-Pomar, R.; Monteiro, F.A.; Minx, P.; Spieth, S.; Carvalho, A.B.; Panzera, F.; Lawson, D.; Torres, A.L.Q.; Ribeiro, J. M.C.; Sorgine, M.H.F.; Waterhouse, R., Montague, M.J.; Abad-Franch, F.; Alves-Bezerra, M.; Amaral, L.R.; Araujo, H; Araujo, R.N; Aravind, L.; Atella, G.C.; Azambuja, P; Berni, M; Bittencourt-Cunha, P.; Braz, G.R.C.; Calderón-Fernández, G.M.; Carareto, C.M.A.; Christensen, M.B.; Costa, I.R.; Costa, S.G.; Dansa-Petretski, M.; Daumas-Filho, C.R.O.; De Paula, I.F.; Dias, F.A.; Dimopoulos, G.; Emrich, S.J.; Esponda-Behrens, N.; Fampa, P; Fernández-Medina, R.D.; Fonseca, R.N.; Fontenele, M.; Fronick, C.; Fulton, L.; Gandara, A.C.P.; Garcia, E.S.; Genta, F.A.; Giraldo-Calderón, G.I.; Gomes, B.; Gomes; Gondim, K.C.; Granzoto, A.; Guarneri, A.A.; Guigó, R.; Harry, M.; Hughes, D.S.T.; Jablonka, W.; Jacquín-Joly, E.; Juárez, M.P.; Koerich, L.B.; Latorre-Estivalis, J.M.; Lavore, A.E.; Lawrence, G.G.; Lazoski, C.; Lazzari, C.R.; Lopes, R.R.; Lorenzo, M.G.; Lugon, M.D.; Majerowicz, D.; Marcet, P.L.; Mariotti, M.; Masuda, H.; Megy, K.; Melo, A.C.A.; Missirlis, F; Mota, T.; Noriega, F.G.; Nouzova, M.; Nunes, R.D.; Oliveira, R.L.L.; Oliveira-Silveira, G.; Ons, S.; Pagola, L.; Paiva-Silva, G.O.; Pascual, A.; Pavan, M.; **Pedrini, N.**; Peixoto, A.A.; Pereira, M.H.; Pike, A.; Polycarpo, C.; Prosdocimi, F.; Ribeiro-Rodrigues, R.; Robertson, H. M.; Salerno, A.P.; Salmon, D.; Santesmasses, D.; Schama, R.L.; Seabra-Junior, E.S.; Silva-Cardoso, L.; Silva-Neto, M.A.C.; Souza-Gomes, M.; Sterkel, M.; Taracena, M.L.; Tojo, M.; Tu, Z.; Tubío, J.M.C.; Ursic-Bedoya, R.; Venancio, T.M.; Walter-Nuno, A. B.; Wilson, D.; Warren, W.; Wilson, R.K.; Huebner, E.; Dotson, E.M.; Oliveira, P.L. (2015) Genome of *Rhodnius prolixus*, an insect vector of Chagas disease, reveals unique adaptations to hematophagy and parasite transmission. *Proceedings of the National Academy of Sciences USA* 112 (48): 14936–14941.
- Pedrini, N.**, A. Ortiz Urquiza, C. Huarte Bonnet, Y. Fan, M.P. Juárez, N.O. Keyhani. (2015) Tenebrionid secretions and a fungal benzoquinone oxidoreductase form competing components of an arms race between a host and pathogen. *Proceedings of the National Academy of Sciences USA* 112 (28): E3651-E3660
- Lobo L.S., W.C. Luz, E.K.K. Fernandes, M.P. Juárez, **N. Pedrini*** (2015) Assessing gene expression during pathogenesis: use of qRT-PCR to follow toxin production from the entomopathogenic fungus *Beauveria bassiana* during infection and immune response of the insect host *Triatoma infestans*. *Journal of Invertebrate Pathology* 128: 14-21.
- Forlani, L., **N. Pedrini**, J. Girotti, S. Mijailovsky, R. Cardozo, A. Gentile, C. Hernández, J. Rabinovich, M.P. Juárez. (2015). Biological control of the Chagas disease vector *Triatoma*

- infestans* with the entomopathogenic fungus *Beauveria bassiana* combined with an aggregation cue: field, laboratory and mathematical modeling assessment. *PLoS Neglected Tropical Diseases* 9(5): e0003778
6. Silva R.A., E.D. Quintela, G.M. Mascarín, **N. Pedrini**, L.M. Lião, P.H. Ferri (2015). Unveiling chemical defense in the rice stalk stink bug against the entomopathogenic fungus *Metarhizium anisopliae*. *Journal of Invertebrate Pathology* 127: 93-100
 7. Huarte Bonnet C., M.P. Juárez, **N. Pedrini***. (2015) Oxidative stress in entomopathogenic fungi grown on insect-like hydrocarbons. *Current Genetics* 61(3): 289-297..
 8. Forlani L., M.P. Juárez, S. Lavariás, **N. Pedrini***. (2014). Toxicological and biochemical response of the entomopathogenic fungus *Beauveria bassiana* after exposure to deltamethrin. *Pest Management Science* 70: 751–756
 9. **Pedrini, N.**, A. Ortiz Urquiza, C. Huarte Bonnet, S. Zhang, N.O. Keyhani. (2013) Targeting of insect epicuticular lipids by entomopathogenic fungi: hydrocarbon oxidation within the context of a host-pathogen interaction. *Frontiers in Microbiology* 4: 24.
 10. Zhang S., E. Widemann, G. Bernard, A. Lesot, F. Pinot, **N. Pedrini**, N.O. Keyhani. (2012). CYP52X1, representing a new cytochrome P450 subfamily, displays fatty acid hydroxylase activity and contributes to virulence and growth on insect cuticular substrates in the entomopathogenic fungus *Beauveria bassiana*. *Journal of Biological Chemistry* 287(16): 13477-13486 **13**.
 11. **Pedrini N.**, S. Zhang, M.P. Juárez, N.O. Keyhani. (2010) Molecular characterization and expression analysis of a suite of cytochrome P450 enzymes implicated in insect hydrocarbon degradation in the entomopathogenic fungus *Beauveria bassiana*. *Microbiology (UK)*, 156: 2549 – 2557.
 12. **Pedrini N.**, M.L. Villaverde, C.B. Fuse, G.M. Dal Bello, M.P. Juárez. (2010) *Beauveria bassiana* infection alters colony development and defensive secretions of the beetles *Tribolium castaneum* and *Ulomoides dermestoides* (Coleoptera: Tenebrionidae). *Journal of Economical Entomology*, 103(4): 1094-1099.
 13. Villaverde M.L., J.R. Girotti, S.J. Mijailovsky, **N. Pedrini**, M.P. Juárez. (2009) Volatile secretions and epicuticular hydrocarbons of the beetle *Ulomoides dermestoides*. *Comparative Biochemistry and Physiology* 154B:381-386.
 14. **Pedrini N.**, S.J. Mijailovsky, J.R. Girotti, R. Stariolo, R.M. Cardozo, A. Gentile, M.P. Juárez. (2009). Control of pyrethroid-resistant Chagas disease vectors with entomopathogenic fungi. *PLoS Neglected Tropical Diseases* 3(5): e434 **9**.
 15. **Pedrini N.**, M.P. Juárez. En: J. Capinera (2008) Entomopathogenic fungi and their host cuticle. (Ed.), *Encyclopedia of Entomology (2nd. Edition)*. Springer-Verlag, Heidelberg, pp. 1333-1336.
 16. Crespo R., **N. Pedrini**, M.P. Juárez, G.M. Dal Bello. (2008). Volatile organic compounds released by the entomopathogenic fungus *Beauveria bassiana*. *Microbiological Research*, 163(2):148-151
 17. **Pedrini N.**, R. Crespo, M.P. Juárez. (2007). Biochemistry of insect epicuticle degradation by entomopathogenic fungi. *Comparative Biochemistry and Physiology*, 146C(1-2):124-137
 18. **Pedrini N.**, M.P. Juárez, R. Crespo, M.J. Tacconi de Alaniz. (2006). Clues on the role of *Beauveria bassiana* catalases in alkane degradation events. *Mycologia*, 98(4): 528-534
 19. Dal Bello G.M., S. Padín, M.P. Juárez, **N. Pedrini**, M. De Giusto. (2006). Biocontrol of *Acanthoscelides obtectus* and *Sitophilus orizae* with diatomaceous earth and *Beauveria bassiana* on stored grains. *Biocontrol Science and Technology*, 16(2): 215-220
 20. Crespo R., M.P. Juárez, G.M. Dal Bello, S.B. Padín, G. Calderón Fernández, **N. Pedrini**. (2002). Increased mortality of *Acanthoscelides obtectus* by alkane-grown *Beauveria bassiana*. *BioControl*, 47(6): 685-696

Nilce M. Martinez-Rossi



Dr. Nilce Maria Martinez-Rossi graduated with a BS in Biological Sciences (Universidade de São Paulo), Master's in Genetics (ESALQ-USP) and Ph.D. in Genetics (FMRP-USP). She is the leader of the Genetics and Molecular Biology of Fungi Laboratory from the Department of Genetics (FMRP-USP). Nilce was member of Steering Committee of the comparative genomic project "Dermatophyte Comparative Database" of the Broad Institute, MIT, USA. She did a post-doctorate at the University of London (1986-1988) and stages of short duration at the University of Glasgow (UK), Texas A & M University System (Houston, USA), and University of Buenos Aires (Argentina). Nilce has a level 1B Productivity from the National Council for Scientific and Technological Development (CNPq). Her research focuses on Molecular Genetics of Microorganisms in following subjects: gene

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Publication: 78

Total Citations: 1839

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1. Education

Year	Title	Institution	Location
1986	PhD - Genetics	Universidade de São Paulo	Ribeirão Preto, SP, Brazil
1980	Master	Universidade de São Paulo	Piracicaba, SP, Brazil
1974/75	Specialization	University of Paris	Paris, France
1973	Specialization	Universidade de Buenos Aires	Buenos Aires, Argentina
1972	BS- Biological Sciences	Universidade de São Paulo	Ribeirão Preto, SP, Brazil

2. Professional experience

Year	Title	Institution	Location
1986-present	Professor	Ribeirão Preto Medical School- Universidade de São Paulo	Ribeirão Preto, SP, Brazil

1. Peres, N.T.A.; Silva, L. G.; Santos R. S.; Jacob, T. R.; Persinoti, G. F.; Rocha, L. B.; Falcão, J.P.; Rossi, A.; **Martinez-Rossi, N. M.** (2016) In vitro and ex vivo infection models help assess the molecular aspects of the interaction of *Trichophyton rubrum* with the host milieu. *Medical Mycology (Oxford. Print)*, v. 54, p. 420-427.
2. Martins, M. P.; Franceschini, A. C. C.; Jacob, T. R.; Rossi, A.; **Martinez-Rossi, N. M.** (2016) Compensatory expression of multidrug-resistance genes encoding ABC transporters in dermatophytes. *Journal of Medical Microbiology*, v. 65, p. 605-610.
3. Mendes, N.S.; Silva, P. M.; Silva-Rocha, R.; **Martinez-Rossi, N. M.**; Rossi, A. (2016) Pre-mRNA splicing is modulated by antifungal drugs in the filamentous fungus *Neurospora crassa*. *FEBS Open Bio*, v. 6, p. 358-368.
4. **Martinez-Rossi, N. M.**; Jacob, TR; Sanches, PR; Peres, NTA; Lang, EAS; Martins, MP; Rossi, A. (2016) Heat Shock Proteins in Dermatophytes: Current Advances and Perspectives. *Current Genomics*, v. 17, p. 99-111.
5. Jacob, T. R.; Peres, N. T. A.; Martins, M. P.; Lang, E. A. S.; Sanches, Pablo R.; Rossi, Antonio; **Martinez-Rossi, N. M.** (2015). Heat Shock Protein 90 (Hsp90) as a Molecular Target for the Development of Novel Drugs Against the Dermatophyte *Trichophyton rubrum*. *Frontiers in Microbiology (Online)*, v. 6, p. 1241.
6. Dos Santos Castro, L.; Pedersoli, W. R.; Antonieto, A. C.; Steindorff, A. S.; Silva-Rocha, R.; **Martinez-Rossi, N. M.**; Rossi, A.; Brown, N. A.; Goldman, G. H.; Faça, V. M.; Persinoti, G. F.; Silva, R. N. (2014) Comparative metabolism of cellulose, sophorose and glucose in *Trichoderma reesei* using high-throughput genomic and proteomic analyses. *Biotechnology for Biofuels*, v. 7, p. 41.
7. Persinoti, GF; Peres, NTA; Jacob, TR; Rossi, A; Vencio, RZN; **Martinez-rossi, N. M.** (2014). RNA-sequencing analysis of *Trichophyton rubrum* transcriptome in response to sublethal doses of acriflavine. *BMC Genomics*, v. 15, p. S1 1471-2164.
8. Coelho, Luciene M.; Cursino-Santos, Jeny R.; Persinoti, Gabriela F.; Rossi, Antonio; **Martinez-Rossi, N. M.** (2013). The genome is organized into five chromosomes based on evidence from electrophoretic karyotyping and chromosome end mapping. *Medical Mycology (Oxford. Online)*, v. 51, p. 208-213.
9. Gras, Diana E.; Persinoti, Gabriela F.; Peres, Nalu T.A.; **Martinez-Rossi, Nilce M.**; Tahira, Ana C.; Reis, Eduardo M.; Prade, Rolf A.; Rossi, Antonio. (2013) Transcriptional profiling of *Neurospora crassa* -mak-2 reveals that mitogen-activated protein kinase MAK-2 participates in the phosphate signaling pathway. *Fungal Genetics and Biology (Print)*, v. 60, p. 140-149.
10. Rossi, Antonio; Cruz, Aline H. S.; Santos, Rodrigo S.; Silva, Patricia M.; Silva, Emiliana M.; Mendes, Nieve S.; **Martinez-Rossi, Nilce M.** (2013) Ambient pH sensing in filamentous fungi: Pitfalls in elucidating regulatory hierarchical signaling networks. *IUBMB Life (London. Print)*, v. 65, p. 930-935.
11. Martinez, D. A. Oliver, B. G. Graser, Y. Goldberg, J. M. Li, W. **Martinez-Rossi, N. M.** Monod, M. Shelest, E. Barton, R. C. Birch, E. Brakhage, A. A. Chen, Z. Gurr, S. J. Heiman, D. Heitman, J. Kosti, I. ROSSI, A. Saif, S. Samalova, M. Saunders, C. W. Shea, T. Summerbell, R. C. Xu, J. Young, S. Zeng, Q. , et al.; (2012) Comparative Genome Analysis of *Trichophyton rubrum* and Related Dermatophytes Reveals Candidate Genes Involved in Infection. *MBIO*, v. 3, p. e00259-12-e00259-12.
12. Mendes, Nieve S.; Trevisan, Glauce L.; Silva Cruz, A. H.; Santos, Rodrigo S.; Peres, N. T.A.; **Martinez-Rossi, N. M.**; Rossi, A. (2012). Transcription of N- and O-linked mannosyltransferase genes is modulated by the pacC gene in the human dermatophyte *Trichophyton rubrum*. *FEBS Open Bio*, v. 2, p. 294-297.

13. Maranhão, Fernanda C.A.; Silveira, Henrique C.S.; Rossi, Antonio; **Martinez-Rossi, N. M.** (2011). Isolation of transcripts overexpressed in the human pathogen grown in lipid as carbon source. *Canadian Journal of Microbiology (Print)*, v. 57, p. 333-338.
14. Medeiros, A.R.F.; Prado, L.A.M.; Fernandes, V C; Figueiredo, S S; Coppede, J S; Martins J.; Fiori, GML; **Martinez-Rossi, N. M.**; Belebony, R O; Contini, S.H.T.; Pereira, P S ;Fachin, A. L. (2011). Antimicrobial Activities of Indole Alkaloids from *Tabernaemontana catharinensis*. *Natural Product Communications*, v. 6, p. 193-196.
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19. Squina, Fabio M.; Leal, Juliana; Cipriano, Vivian T. F.; **Martinez-Rossi, N. M.**; Rossi, Antonio . (2010) Transcription of the *Neurospora crassa* 70-kDa class heat shock protein genes is modulated in response to extracellular pH changes. *Cell Stress & Chaperones*, v. 15, p. 225-231.
20. Silveira, Henrique C.S.; Gras, Diana E.; Cazzaniga, Rodrigo A.; Sanches, Pablo R.; Rossi, Antonio; **Martinez-Rossi, N. M.** (2010). Transcriptional profiling reveals genes in the human pathogen *Trichophyton rubrum* that are expressed in response to pH signaling?. *Microbial Pathogenesis*, v. 48, p. 91-96.

Reinhard Fischer



Dr. Reinhard Fischer received undergraduate and graduate training at the University of Marburg, Germany. His PhD thesis was on methanogenic archaea, supervised by Rolf Thauer. From 1992 to 1993, he was a post-doctoral fellow with William E. Timberlake at the University of Athens, GA, USA. His research at that time focused on nuclear migration and conidiophore development in *Aspergillus nidulans*. Dr. Fischer established his own research group in 1994 at the University of Marburg and the Max-Planck-Institute for terrestrial Microbiology and accepted an associate professor position at the University of Karlsruhe in 2004. He was promoted to full professor at the Karlsruhe Institute of Technology (KIT) in 2008. His research focuses on different aspects of basic and applied fungal biology.

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Súmula Curricular

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 Publication: 95
 Total Citations: 3620
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1. Education

Year	Title	Institution	Location
1992/93	Postdoctoral Fellow	University of Georgia	Athens, GA, USA
1991/92	Postdoctoral Researcher	Philipps-Universität Marburg	Marburg, Germany
1990	Dr.rer.nat.- Microbiology	Philipps-Universität Marburg	Marburg, Germany

1987	Diploma – Microbiology	Philipps-Universität Marburg	Marburg, Germany
1987	BS- Biology	Philipps-Universität Marburg	Marburg, Germany

2. Professional experience

Year	Title	Institution	Location
2004-present	Professor	University of Karlsruhe	Karlsruhe, Germany
1999-2004	Professor	Philipps-Universität Marburg	Marburg, Germany
1994-2004	Professor	Marburg and the Max-Planck-Institute for terrestrial Microbiology	Marburg, Germany

3. List of the most relevant publication (up to 20 papers)

1. Yu, Z, Armant, O. & **Fischer, R.** (2016) Fungi use the SakA (HogA) pathway for phytochrome-dependent light signaling. *Nature Microbiol*, 1, 16019. highlight in Nature Reviews Microbiology.
2. Rauscher, S., Pacher, S., Hedtke, M., Kniemeyer, O. & **Fischer, R.** (2016) A phosphorylation code of the *Aspergillus nidulans* global regulator VelvetA (VeA) determines specific functions. *Mol Microbiol*, 99, 909-924.
3. Fokina, O., Eipper, J., Winandy, L., Kerzenmacher, S. & **Fischer, R.** (2015) Improving the performance of a biofuel cell cathode with laccase from *Pycnoporus sanguineus*. *Biores. Technol.*, 175, 445-453
4. Ishitsuka, Y., Savage, N., Li, Y., Bergs, A., Kohler, D., Donnelly, R., Nienhaus, U., **Fischer, R.** & Takeshita, N. (2015) Super-resolution microscopy reveals a dynamic picture of cell polarity maintenance during directional growth. *Science Advances*, 1(10):e1500947.
5. Hedtke, M., Rauscher, S., Röhrig, J., Rodriguez, J., Yu, Z., & **Fischer, R.** (2015) Light-dependent gene activation in *Aspergillus nidulans* is strictly dependent on phytochrome and involves the interplay of phytochrome and white-collar-regulated histone H3 acetylation. *Mol Microbiol*, 94, 733-745.
6. Manck, R., Ishitsuka, Y., Herrero de Vega, S., Takeshita, N., Nienhaus, U.G. & **Fischer, R.** (2015) Genetic evidence for a microtubule-capture mechanism during polar growth of *Aspergillus nidulans*. *J Cell Sci*, 128, 3569-3582.
7. Herr, A. & **Fischer, R.** (2014) Improvement of *Aspergillus nidulans* penicillin production by targeting AcvA to peroxisomes. *Metab. Eng.*, 25:131-139.
8. Pruß, S., Fetzner, R., Seither, K., Herr, A., Pfeiffer, E., Metzler, M., Lawrence, C.B. & **Fischer, R.** (2014) On the role of the blue-light receptor WC-1 (LreA) in *Alternaria alternata* in spore formation and secondary metabolism. *Appl. Environ. Microbiol.*, 80(8): 2582-2591.
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10. Takeshita, N., Mania, D., Herrero de Vega, S., Ishitsuka, Y., Nienhaus, G.U., Podolski, M., Howard, J. & **Fischer, R.** (2013). The cell end marker TeaA and the microtubule polymerase AlpA contribute to microtubule guidance at the hyphal tip cortex of *Aspergillus nidulans* for polarity maintenance. *J Cell Sci*, 126, 5400-5411.
11. Seidel, C., Zekert, N. & **Fischer, R.** (2012) The tail of the kinesin-3 motor, UncA, is necessary and sufficient to confer specificity for modified microtubules in *Aspergillus nidulans*. *PLoS One*, 7:e30976
12. Takeshita, N., Diallynas, G. & **Fischer, R.** (2012) The role of flotillin FloA and stomatin StoA in the maintenance of apical sterol-rich membrane domains (SRDs) and polarity in the filamentous fungus *Aspergillus nidulans*. *Mol. Microbiol.*, 83(6):1136-1152.
13. Zekert, N., Veith, D. & **Fischer, R.** (2010) Interaction of the *Aspergillus nidulans* MTOC component ApsB with gamma-tubulin and evidence for a role of a subclass of peroxisomes in the formation of septal MTOCs. *Eukaryot. Cell*, 9:795-805.
14. Purschwitz, J., Müller, S. & **Fischer, R.** (2009) Mapping the interaction sites of *Aspergillus nidulans* phytochrome FphA with the global regulator VeA and the white-collar protein LreB.

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15. Purschwitz, J., Müller, S., Kastner, C., Schöser, M., Haas, H., Espeso, E. A., Atoui, A., Calvo, A. M. & **Fischer, R.** (2008). Functional and physical interaction of blue and red-light sensors in *Aspergillus nidulans*. *Curr Biol* 18, 255-259.
 16. Blumenstein, A., Vienken, K., Tasler, R., Purschwitz, J., Veith, D., Frankenberg-Dinkel, N. & **Fischer, R.** (2005) The *Aspergillus nidulans* phytochrome FphA represses sexual development in red light. *Curr Biol*, 15, 1833-1838.
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 18. Galagan, J., Calvo, S. E., Cuomo, C., Ma, L.-J., Wortman, J., Batzoglou, S., Lee, S.-I., Bastürkmen, M., Spevak, C. C., Clutterbuck, J., Kapitonov, V., Jurka, J., Scaccocchio, C., Farman, M., Butler, J., Purcell, S., Harris, S. D., Braus, G. H., Draht, O., Busch, S., d'Enfert, C., Bouchier, C., Goldman, G. H., Bell-Pedersen, D., Griffith-Jones, S., Vienken, K., Pain, A., Freitag, M., Selker, E. U., Archer, D. B., Penalva, M. A., Oakley, B. R., Momany, M., Tanaka, T. U., Kumagai, T., Asai, K., Machida, M., Nierman, W. C., Denning, D. W., Caddick, M., Hynes, M. J., Paoletti, M., **Fischer, R.**, Miller, B. L., Dyer, P. S., Sachs, M. S., Osmani, S. A. & Birren, B. (2005). Sequencing and comparative analysis of *Aspergillus nidulans*. *Nature* 438, 1105-1115.