

Beatriz Merchel Piovesan Pereira

Brazilian

EDUCATION

PhD: Microbiology Graduate Group

University of California, Davis (UC Davis), Davis, CA, USA

September 2014 – in course

Master degree: Master of Chemical Engineering in the field of Chemical Process Development

Universidade Estadual de Campinas (Unicamp), Campinas, SP, Brazil

August 2010 – December 2012

Thesis title: Enzyme production by a filamentous fungus to the hydrolysis of lignocellulosic material.

(Produção de enzimas por fungo filamentosos para hidrólise de material lignocelulósico)

Advisors: Prof. Dr. Aline Carvalho da Costa and Dr. José Geraldo da Cruz Pradella

Bachelor degree: Biotechnology and Bioprocess Engineering

Universidade Federal do Paraná (UFPR), Curitiba, PR, Brazil

February 2006 – August 2010

EXTRA COURSES

Short course: Applied Dual Use Biosecurity Education: Online distance learning Module 30 Master level credit.

University of Bradford, School of Social and International Studies, Bradford, United Kingdom

September – December 2011

PROFESSIONAL AND RESEARCH EXPERIENCE

R&D Bioprocess Researcher

IMCOPA - Importação, Exportação e Indústria de Óleos Ltda.

Araucária, PR, Brazil

February 2013 – May 2014

Integrand of the CnpQ Project 456218/2012-2: Protein recovery and production of second generation ethanol from soybean hull (*Recuperação de proteínas e produção de etanol de segunda geração a partir de casca de soja*). Responsible for material acquisition, experiments planning and execution, team training, reporting results to the leader and to the Director of the R&D Department.

Trainee

Laboratório Nacional de Ciência e Tecnologia do Bioetanol (CTBE; *Brazilian Bioethanol Science and Technology Laboratory*), Centro Nacional de Pesquisa em Energia e Materiais (CNPEM)

Campinas, SP, Brazil

January 2010 – August 2010

Advisor: Dr. José Geraldo da Cruz Pradella

Activities: receipt of materials and equipment, Laboratory organization, planning and execution of experiments: *Penicillium echinulatum* cultivation, enzyme production and activity scanning, sugarcane bagasse pretreatment, enzymatic hydrolysis for second generation ethanol production.

Undergraduate Research

Universidade Federal do Paraná (UFPR), Curitiba, PR, Brazil

(August 2007 – November 2009)

Production and recovery of biotechnologically produced banana flavor. (*Produção e recuperação de aromas produzidos biotecnologicamente*)

Advisor: Prof. Dra. Adriane Bianchi Pedroni Medeiros

Activities: flavor production with filamentous fungi in solid state fermentation, experimental design, enzymatic analysis, optimization of culture conditions.

PUBLICATIONS AND PRESENTATIONS:

Complete published articles:

1. **PEREIRA, B.M.P.** ; ALVAREZ, T.M. ; DA SILVA DELABONA, P. ; DILLON, A.J.P. ; SQUINA, F.M.; DA CRUZ PRADELLA, J.G. Cellulase On-Site Production from Sugar Cane Bagasse Using *Penicillium echinulatum*. Bioenerg. Res., v. 6, p. 1052-1062, 2013.
2. RIBEIRO, D. A. ; COTA, J. ; ALVAREZ, T. M. ; BRÜCHLI, F. ; BRAGATO, J.; **PEREIRA, B. M. P.** ; PAULETTI, B. A. ; JACKSON, G. ; PIMENTA, M. T. B. ; MURAKAMI, M. T. ; CAMASSOLA, M. ;

- RULLER, R. ; DILLON, A. J. P. ; PRADELLA, J. G. C. ; PAES LEME, A. F. ; SQUINA, F. M. .
The *Penicillium echinulatum* Secretome on Sugar Cane Bagasse. Plos One, v. 7, p. e50571, 2012.
3. ROSSI, S.C. ; VANDENBERGHE, L.P.S. ; **PEREIRA, B. M. P.** ; GAGO, F.D.; RIZZOLO, J.A. ; PANDEY, A.; SOCCOL, C.R. ; MEDEIROS, A.B.P. . Improving fruity aroma production by fungi in SSF using citric pulp. Food Research International, p. 10.101, 2009.

Other selected relevant publications:

4. **B. M. P. PEREIRA**, L.C. MIRANDA, I. STRUM, A. GONÇALVES, C.F. PEDROSO, P. F. SIQUEIRA. Soybean hull characterization for evaluation as substrate for second generation ethanol production. (*Caracterização da casca de soja para avaliação da sua potencial aplicação para produção de etanol de segunda geração*). XIX Simpósio Nacional De Bioprocessos. X Simpósio De Hidrólise Enzimática De Biomassas. Foz do Iguaçu, PR, Brasil, 2013.
5. **MERCHEL, B.P.P.**, PRADELLA, J.G.C., COSTA, A.C. Composition and carbon concentration effect on lignocellulolytic enzyme production by *Trichoderma reesei* RUT-C30. (*Efeito Da Composição E Concentração Do Meio De Cultivo Sobre A Produção De Enzimas Lignocelulolíticas Por Trichoderma reesei Rut-C30*). XXI Congresso Latinoamericano de Microbiologia (XXI ALAM), Santos, SP, Brazil, 2012.
6. ROBL, D., MERGEL, C.M. , DELABONA, S.P., COSTA, P.S., **PEREIRA, B.M.P.**, PRADELLA, J.G.P, PADILLA, G. Hemicellulolytic Enzymes Profile Of Endophytic Actinomycetes Extracts. In: XXI Congresso Latinoamericano de Microbiologia (XXI ALAM), Santos, SP, Brazil, 2012.
7. DELABONA, P.S.; FARINAS, C.S.; LIMA, D.J.; **PEREIRA, B.M.P.**, PRADELLA, J.G.C. Use of a new *Trichoderma harzianum* from the Amazon rainforest for on-site cellulase production. In: X Seminário Brasileiro de Tecnologia enzimática ENZITEC, Blumenau, SC, Brasil, 2012.
8. **MERCHEL, B.P.P.** ; DELABONA, P.S.; COSTA, A. C.; PRADELLA, J.G.C. Strategies for lignocellulolytic enzyme production by *Trichoderma reesei* RUT-C30 with sugarcane bagasse. (*Estratégias para produção de enzimas lignocelulolíticas por Trichoderma reesei RUT-C30 empregando bagaço de cana-de-açúcar*). 6º Congresso Internacional de Bioenergia, Curitiba, PR, Brazil, 2011.
9. PRADELLA, J.G.C.; **MERCHEL, B.P.P.** ; DILON, A.J.P. ; LIMA, D. J. S.; DELABONA, P.S. Pretreated bagasse for cellulase production by *Penicillium echinulatum*. (*Bagaço pré-tratado para produção*

de celulasas por Penicillium echinulatum). XVIII Simpósio Nacional de Bioprocessos, Caxias do Sul, RS, Brazil, 2011.

10. **MERCHEL, B.P.P.** ; PRADELLA, J.G.C. Enzyme production by *Penicillium echinulatum* for lignocelulosic material hydrolysis. (*Produção de enzimas por Penicillium echinulatum para hidrólise de material lignocelulósico*). 5º Congresso Internacional de Bioenergia, Curitiba, PR, Brazil, 2010.
11. ROSSI, S. C. ; **PEREIRA, B.M. P.** ; MEDEIROS, A. B. P. ; VANDENBERGHE, L. P. S. ; CARVALHO, J. C. ; PACA, J. ; SOCCOL, C. R. Production of natural fruity aroma by fungi in solid state fermentation employing citric pulp as substrate. International Congress of Chemical and process Engineering, Praga, 2008.
12. ROSSI, S. C. ; MEDEIROS, A. B. P. ; VANDENBERGHE, L. P. S. ; **PEREIRA, B. M. P.** ; GAGO, F. D. ; RIZZOLO, J.A. ; PANDEY, A. ; SOCCOL, C. R. Optimization of Nutrients to Produce Fruity Aroma by Fungi in Solid State Fermentation. Congress on Bioprocesses in Food Industries ICBF, p. 61, Hyderabad, 2008.

SCHOLARSHIPS

PhD scholarship: Science without Borders (*Ciência sem Fronteiras*), selected for a LASPAU administered scholarship

2014 - 2018

Research Scholarship: National Counsel of Technological and Scientific Development (*Conselho Nacional de Desenvolvimento Científico e Tecnológico – Cnpq*) SET-F type RHAE Program.

February 2013 – May 2014

Master Program Scholarship: Sao Paulo Research Foundation (FAPESP)

March 2011 – December 2012

US Department of State Bursary: BioEngagement program

September – December 2011

Undergraduate Research Scholarship: National Counsel of Technological and Scientific Development
(*Conselho Nacional de Desenvolvimento Científico e Tecnológico - Cnpq*) and Araucaria Foudation
(*Fundação Araucária*)

August 2007 – November 2009

LANGUAGES

Portuguese: native speaker

English: proficient

German: basic level

VOLUNTEER ACTIVITIES

August – October 2013: Volunteer activities with children and teenagers in the *Community in the School Program* promoted by the Curitiba City Hall.

RESEARCH INTERESTS

Biotechnology

Genetics/ Molecular biology

Biofuels

Synthetic Biology