

Résumé

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INTERESTS

Microbial biochemistry; Environmental "Omics" approaches; metaproteomics; metabolomics; environmental proteomics; biogeochemistry; microbial ecology with multidisciplinary approaches; Artificial Neural Network; teaching.

EDUCATION AND RESEARCH POSITIONS

2010-2013 University of São Paulo	Post-doctorate Postdoc research project: <i>“Functional diversity in the phyllosphere: a proteogenomics and metabolomics approaches”</i> under the supervision of Dr. Marcio Rodrigues Lambais. Supported by FAPESP.
2009-2010 University of São Paulo	Post-doctorate Postdoc research project: <i>“Functional diversity in the phyllosphere: a metaproteomic approach”</i> was under the supervision of Dr. Marcio Rodrigues Lambais. Supported by CNPq.
2004-2008 State University of Campinas, Brazil University of Córdoba, Spain	PhD in Environmental Microbiology Degree in Soil biochemistry, environmental proteomics, microbial ecology. <i>Dissertation title: “Metaproteomic and biochemistry of hydrocarbons and heavy metals-contaminated soils”</i> . Advised by Dra. Lucia Durrant (Brazil) and Dr. Juan López Barea (Spain) and funded by CAPES. <i>Defended the 19th of April 2008, with honour.</i>
2002-2004 Federal University of Rio Grande do Sul, Brazil	MSc. in Soil Science Degree in soil microbiology and biochemistry, biodegradation, environmental microbiology, bioremediation. <i>Thesis title: “Anthracene biodegradation stimulated by iron”</i> Advised by Dr. Flávio A. O. Camargo and funded by CNPq. <i>Defended the 12th of February 2004, with honour.</i>
1997-2001 Federal University of Santa Maria, Brazil	Agronomy Degree in Agronomist engineer. My scientific initiation research project: <i>“Estimation of nitrogen fixation in an Azolla-rice association”</i> Advisor: Dr. Marcos Rubens Fries.

EMPLOYEMENT

Position

2013- Assistant Professor, Department of Chemistry and Biology, Federal University of Technology - Paraná

Teaching experience

2010-2010 Teaching assistant, State University of São Paulo. Course: **Environmental**

proteomics.

2006-2006 Teaching assistant, State University of Campinas, Brazil. Course: **Applied Microbiology**.

2005 - 2005 Teaching assistant, State University of Campinas, Brazil. Course: **Industrial microbiology and fermentations**.

INVITED LECTURES

2010 “Use of metaproteomics approach to the study of functional diversity from microbial communities”. Invited lecture at the XII National Meeting on Environmental Microbiology, Manaus, Amazonas, Brazil. 2010.

2010 “Soil Proteomics and Transcriptomics: elucidating gene expression of soil biota”. Invited lecture at the FERTBIO 2010, Guarapari, Espírito Santo, Brazil. 2010.

2009 “Functional diversity in the phyllosphere: a metaproteomic approach”. Invited lecture at the 20th Brazilian Congress of Microbiology, Porto de Galinhas, Pernambuco, Brazil. 2009.

2009 “Metaproteomic: the link between genetic and functional diversity of complex microbial communities”. Invited lecture at the Workshop on bioremediation and biodegradation, Campinas, São Paulo, Brazil. 2009.

Main PUBLICATIONS

Papers published

2017 LAMBAIS, M.R.; BARRERA, S.E.; SANTOS, E.C.; CROWLEY, D.E.; JUMPPONEN, A. Phyllosphere metaproteomes of trees from the brazilian atlantic forest show high levels of functional redundancy. *Microbial Ecology* v.73 (1), 123-134, 2017.

2014 SANTOS, E.C; ARMAS, E.D; CROWLEY, D.E; LAMBAIS, M.R. Artificial neural network modeling of microbial community structures in the Atlantic Forest of Brazil. *Soil Biology & Biochemistry* v.69, 101-109, 2014.

2013 VALADARES, R.B.S.; PEROTTO, S.; SANTOS, E.C.; LAMBAIS, M.R. Proteome changes in *Oncidium sphacelatum* (Orchidaceae) at different trophic stages of symbiotic germination. *Mycorrhiza* v. 24, p. 349-360, 2013.

2012 SANTOS, E. C.; SILVA, Í.S.; SIMÕES, T. H. N.; et al. Correlation of soil microbial community responses to contamination with crude oil with and without chromium and copper. *International Biodeterioration and Biodegradation*, v. 70, p. 104-110, 2012.

2010 SILVA, I.S.; SANTOS, E. C.; MENEZES, C.R.; et al. . Degradation of lignin-related compounds under microaerobic conditions with production of a ligninolytic system by soil fungi. *Brazilian Archives of Biology and Technology*, v. 53, n3, p. 693-699, 2010.

2009 SILVA, Í.S.; SANTOS, E.C.; MENEZES, C.R.; et al. . Bioremediation of a polyaromatic hydrocarbon contaminated soil by native soil microbiota and bioaugmentation with isolated microbial consortia. *Bioresource Technology*, v. 100, p. 4669-4675, 2009.

- 2008 SANTOS, E. C.; JACQUES, R. J. S.; SELBACH, P.; et al. . Anthracene biodegradation and surface activity by an iron-stimulated *Pseudomonas* sp.. *Bioresource Technology*, v. 99, p. 2644-2649, 2008.
- 2008 JACQUES, R. J. S.; SANTOS, E. C.; HADAD, R.; et al. . Mass spectrometry analysis of surface tension reducing substances produced by a *Pseudomonas citronellolis* PAH-degrading bacterium. *Brazilian Journal of Microbiology*, v. 39, p. 353-356, 2008.
- 2005 JACQUES, R. J. S.; SANTOS, E. C.; SELBACH, P.; et al. . Anthracene biodegradation by *Pseudomonas* sp. isolated from a petrochemical sludge landfarming. *International Biodeterioration and Biodegradation*, v. 56, p. 143-150, 2005.

OTHER QUALIFICATIONS

Languages: Portuguese (native), English (intermediate), Spanish (Fluent)

Computer skills: Microsoft Office™ tools; bioinformatic tools (MEGAN, ProteomWeaver, PDQuest, Scaffold, PatternLab for proteomics); MassMatrix tool; PIKE tool; graphic design applications (Illustrator™, Photoshop™ and Coreldraw™); managing bibliographies tools (Endnote™); statistical tools (SYSTAT 12, SigmaStat, Sigmaplot); Artificial Neural Network tools.

Methods skills: DNA and proteins extractions in soil and water, PCR, Cloning, DGGE, Protein analysis in-gel (SDS-PAGE, IEF, 2D-PAGE, 2D-DIGE), quantitative analysis free-gel (iTRAQ, SILAC and label free), Liquid chromatography, Mass Spectrometry (MALDI-MS/MS, LTQ-Orbitrap, ESI-Q-TOF), Colorimetry measurements by UV spectrometry, Physico-chemical parameters measurements (oxygen, conductivity, pH, Eh, O.M), Enzymes activities (dehydrogenase, lipase, glucosidase, phosphatase, arylsulphatase).

PROFESSIONAL REFERENCE

Prof. Dr. Marcio Rodrigues Lambais (Postdoctoral supervised)
Dept. of Soil Science
University of São Paulo, Brazil.
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E-mail: mlambais@usp.br

Ps.: Please note that is a short form of my CV. **To get my regular size CV** (in Portuguese) please access the website:
<http://lattes.cnpq.br/6377040382992228>