

**Jessy Labbé**

Biosciences Division

Oak Ridge National Laboratory (ORNL)

1 Bethel Valley Road

Oak Ridge, TN 37831-6407

Phone : (865) 576-3478 ; Fax : (865) 574-5353

Email : labbejj@ornl.gov

***Education and Training:***

2016 – Project management training certificate

2016 – Effective business communication training certificate

2009 – 2012, Postdoctoral Research Fellow, Plant System Biology Group, ORNL, Oak Ridge, TN

Nov 2009, PhD. Genetics and Microbiology, University of Lorraine (France)

2006, M.S. Agronomy Forest Ecosystems and Environment, University of Lorraine (France)

2005, M.S. Molecular and Cellular Genetics, University of Lorraine (France)

2004, B.S. Cellular Biology and Physiology, University of Lorraine (France)

***Research and Professional Experience:***

2015 – present, Joint Faculty Researcher at the Graduate School of Genome Science and Technology, University of Tennessee Knoxville, TN

2014 – present, Joint Faculty Assistant Professor at Biochemistry, Cellular and Molecular Biology Department, University of Tennessee Knoxville, TN

2012 – present, Staff Researcher, ORNL, Oak Ridge, TN

2010 – 2012, Postdoctoral Research Associate in Mycology, Molecular Genetics and Genomics of Plant-Microbes Interactions, ORNL, Oak Ridge, TN

2006 – 2009, Ph.D. - Student in Genetics of Plant-Fungal Interactions and Fungal Genomics, Ecogenomics of Interactions Group, INRA, Nancy, France

2006 – 2009, Lecturer, Department of Genetics and Microbiology, University of Lorraine, France

2004 – 2006, Research Assistant, Department of Genetics and Microbiology, University of Lorraine, France

***Publications:***

Y. Qin, X. Pan, C. Kubicek, I. Druzhinina, K. Chenthamara, **J. L. Labbé** and Z Yuan, 2017. Diverse plant-associated pleosporalean fungi from saline areas: ecological tolerance and nitrogen-status dependent effects on plant growth. *Frontiers in Microbiology*

Uehling, J., Gryganskyi, A., Hameed, K., Tschaplinski, T., Misztal, P.K., Wu, S., Desirò, A., Vande, P.N., Du, Z., Zienkiewicz, A. and Zienkiewicz, K., **Labbé, J.** et al. 2017. Comparative genomics of *Mortierella elongata* and its bacterial endosymbiont *Mycoavidus cysteinexigens*. *Environmental microbiology*.

Miquel G, C., Rose, C., Guinnet, F., Miquel, I., **Labbé, J.**, Deveau, A, 2017. A New Method for Qualitative Multi-Scale Analysis of Bacterial Biofilms on Filamentous Fungal Colonies Using Confocal and Electron Microscopy. *J. Vis. Exp.* (119), e54771, doi :10.3791/54771.

Deveau, Aurelie and **Jessy Labbé**. Mycorrhiza Helper Bacteria. In *Wiley-Blackwell Book: The Molecular Mycorrhizal Symbiosis*, 437, New York, NJ: Wiley-Blackwell, 2017.

Li, Z., Yao, Q., Dearth, S.P., Entler, M.R., Castro Gonzalez, H.F., Uehling, J.K., Vilgalys, R.J., Hurst, G.B., Campagna, S.R., **Labbé, J.L.** and Pan, C., 2016. Integrated Proteomics and Metabolomics Suggests Symbiotic Metabolism and Multimodal Regulation in a Fungal-Endobacterial System. *Environmental Microbiology*.

Yuan Z\*, Druzhinina IS\*, **Labbé J\***, Redman R, Qin Y, Rodriguez R, Zhang C, Tuskan GA, Lin F. Specialized microbiome of a halophyte and its role in helping non-host plants to withstand salinity. *Scientific Reports*. 2016; 6. \* Authors equally contributed

Yang Y, **Labbé J**, Muchero W, Yang X, Jawdy SS, Kennedy M, Johnson J, Sreedasyam A, Schmutz J, Tuskan GA, Chen JG. Genome-wide analysis of lectin receptor-like kinases in *Populus*. *BMC genomics*. 2016 Sep 1;17(1): 699.

Kalluri UC, Payyavula R, **Labbé JL**, Engle N, Bali G, Jawdy SS, Sykes R, Davis M, Ragauskas A, Tuskan G, Tschaplinski T. Down-regulation of KORRIGAN-like endo- $\beta$ -1, 4-glucanase genes impacts carbon partitioning, mycorrhizal colonization and biomass production in *Populus*. *Frontiers in Plant Science*. 2016;7: 1455.

**J Labbé**, D Weston, N Dunkirk, D Pelletier and G Tuskan (2014). Newly identified helper bacteria stimulate ectomycorrhizal formation in *Populus*. *Frontier in Plant Sciences, Plant-Microbes interactions* 5(579): 1-10. doi: 10.3389/fpls.2014.00579

**J Labbé**, J Uehling, T Payen, J Plett (2014). Fungal biology: compiling genomes and exploiting them. *New Phytologist* 203:2

A Deveau, H Gross, E Morin, T Karpinets, S Utturkar, S Mehnaz, F Martin, P Frey-Klett, **J Labbé** (2014). Genome sequence of the mycorrhizal helper bacterium *Pseudomonas fluorescens* BBc6R8. *Genome announcements* 2(1): e01152-13

W Muchero, **J Labbé**, P Ranjan, S DiFazio, and GA Tuskan (2014). Genome resequencing in *Populus*: Revealing large-scale genome variation and implications on specialized-trait genomics. T. Fenning (ed.), Challenges and Opportunities for the World's Forests in the 21st Century, Forestry Sciences 81, doi: 10.1007/978-94-007-7076-8\_25

M Shakya , N Gottel , H Castro , ZK Yang , L Gunter , **J Labbé**, W Muchero, G Bonito, R Vilgalys, G Tuskan, M podar, C Schadt (2013). A Multifactor Analysis of Fungal and Bacterial Community Structure in the Root Microbiome of Mature *Populus deltoides* Trees. *PLoS ONE* 8(10): e76382. doi: 10.1371/journal.pone.0076382

G Bonito, A Gryganskyi, K Hameed, C Schadt, D Pelletier, A Schaefer, G Tuskan, **J Labbé**, F Martin, M Doktycz, K LaButti, R Ohm, I Grigoriev, R Vilgalys (2013). Co-evolution of *Mortierella elongata* and its endosymbiotic bacterium. *Phytopathology* 103 (6): 8-19

C Murat, T Payen, D Petitpierre, and **J Labbé** (2013). The Ecological Genomics of Fungi: Repeated Elements in Filamentous Fungi with a Focus on Wood-Decay Fungi. In *The Ecological Genomics of Fungi*, 21, Hoboken, NJ: John Wiley & Sons, Inc. Wiley-Blackwell Publishing

J Guo, JL Morrell-Falvey, **JL Labbé**, W Muchero, UC Kalluri, GA Tuskan, JG Chen (2012). *Populus* protoplast transient expression system. *PLoS ONE* 7(9) : e44908. doi : 10.1371/journal.pone.0044908

**J Labbé**, C Murat, E Morin, GA Tuskan, F Le Tacon, et al. (2012). Characterization of Transposable Elements in the Ectomycorrhizal Fungus *Laccaria bicolor*. *PLoS ONE* 7(8): e40197. doi: 10.1371/journal.pone.0040197

GA Tuskan, S DiFazio, P Faivre-Rampant, M Gaudet, A Harfouche, V Jorge, **JL Labbé**, P Ranjan, M Sabatti, G Slavov, N Street, TJ Tschaplinski and T Yin (2012). The obscure events contributing to the evolution of an incipient sex chromosome in *Populus*: a retrospective working hypothesis. *Tree Genome and Genetics*: doi: 10.1007/s11295-012-0495-6

L Vincenot, K Nara, C Sthultz, **J Labbé**, MP Dubois, L Tedersoo, F Martin and MA Selosse (2012). Extensive gene flow over Europe and possible speciation over Eurasia in the ectomycorrhizal basidiomycete *Laccaria amethystina* complex. *Molecular Ecology* 21(2): 281-299

**J Labbé**, V Jorge, A Kohler, P Vion, B Marçais, C Bastien, GA Tuskan, F Martin and F Le Tacon (2011). Identification of quantitative trait loci affecting ectomycorrhizal symbiosis in an interspecific F<sub>1</sub> poplar cross and differential expression of genes in ectomycorrhizas of the two parents: *Populus deltoides* and *Populus trichocarpa*. *Tree Genetics and Genomes* 7(3): 617-627

**J Labbé**, C Murat, E Morin, F Le Tacon and F Martin (2011). Survey and analysis of simple sequence repeats in the *Laccaria bicolor* genome, with development of microsatellite markers. *Current Genetics* 57(2): 75-88

X. Yang, T. Li, D. Weston, A. Karve, **J. Labbé**, et al., (Sept 2011) “*Innovative Biological Solutions to Challenges in Sustainable Biofuels Production.*” Biofuel Production-Recent Developments and Prospects, InTech, ISBN 978-953-307-478-8

C Murat, C Riccioni, B Belfiori, N Cichocki, **J Labbé**, E Morin, E Tisserant, F Paolocci, A Rubini, F Martin (2011). Distribution and localization of microsatellites in the Perigord black truffle genome and identification of new molecular markers. *Fungal Genetics and Biology* 48(6): 592-601

PE Courty\*, **J Labbé**\*, A Kohler, B Marçais, C Bastien, JL Churin, J Garbaye and F Le Tacon (2011). Effect of poplar genotypes on mycorrhizal infection and secreted enzyme activities in mycorrhizal and non-mycorrhizal roots. *Journal of Experimental Botany* 62 (1): 249-260 \* these authors contributed equally.

H Niculita-Hirzel, **J Labbé**, A Kohler, F Le Tacon, F Martin, I Sanders and U Kües (2008). Gene organization of the mating type regions in the ectomycorrhizal fungus *Laccaria bicolor* reveals distinct evolution between the two mating type loci. *New Phytologist* 180: 329-342

**J Labbé**, X Zhang, T Yin, J Schmutz, J Grimwood, F Martin, G A Tuskan and F Le Tacon (2008). A genetic linkage map for the ectomycorrhizal fungus *Laccaria bicolor* and its alignment to the whole-genome sequence assemblies. *New Phytologist* 180: 316-328

F Martin, A Aerts, D Ahrén, A Brun, E G J Danchin, F Duchaussoy, J Gibon, A Kohler, E Lindquist, V Pereda, A Salamov, H J Shapiro, J Wuyts, D Blaudez, M Buée, P Brokstein, B Canback, D Cohen, P E Courty, P M Coutinho, C Delaruelle, J CDetter, A Deveau, S DiFazio, S Duplessis, L Fraissinet-Tachet, E Lucic, P Frey-Klett, CFourrey, I Feussner, G Gay, J Grimwood, P J Hoegger, P Jain, S Kilaru, **J Labbé**, Y C Lin, V Legué, F Le Tacon, R Marmeisse, D Melayah, B Montanini, M Muratet, U Nehls, H Niculita-Hirzel, M P Oudot-Le Secq, M Peter, H Quesneville, B Rajashekar, M Reich, N Rouhier, J Schmutz, T Yin, M Chalot, B Henrissat, U Kües, S Lucas, Y Van de Peer, G K Podila, A Polle, P J Pukkila, P M Richardson, P Rouzé, I R Sanders, J E Stajich, A Tunlid, GA Tuskan & IV Grigoriev (2008). Symbiosis Insights from the Genome of the Mycorrhizal Basidiomycete *Laccaria bicolor*. *Nature* 452: 88-92

### **Meeting Presentations:**

**Over the past two years:**

MR Entler, P A Meidl and **J Labbé**. A CRISPR-Cas9 platform for Genetic Engineering of Diverse Filamentous Fungi. **29th Fungal Genetics Conference**, Pacific Grove, California, USA, March 14—19, 2017.

**J Labbé**. Comparative Genomics and Transcriptomics of Russulaceae. **29th Fungal Genetics Conference**, Pacific Grove, California, USA, March 14—19, 2017.

A Rojas-Flechas, et al., **J Labbé**. Plant-Microbe Interfaces: Characterizing the Diversity and Function of the Ectomycorrhizome of *Populus trichocarpa*. **29th Fungal Genetics Conference**, Pacific Grove, California, USA, March 14 — April 19, 2017.

L Hui-Ling, et al., **J Labbé**. Metagenomic study of plant-fungal interactions between *Populus trichocarpa* and its rhizosphere fungi. **EMSL User meetings 2017**, Richland, Washington, USA, January 02—04, 2017.

T Tschaplinski, et al., **J Labbé**. Plant-Microbe Interfaces: Metabolic Consequences of the Introduction of a *Populus trichocarpa* Lectin Receptor-Like Kinase into *Arabidopsis thaliana*, a Non-Ectomycorrhizal Host Species. **2017 DOE Genomic Sciences Meeting**, Tyson Corner, Virginia, USA, February 06—08, 2017.

M Ritesh, et al., **J Labbé**. Plant-Microbe Interfaces: Small RNA (sRNA) and Small Open Reading Frame (sORF) Response to Endo- and Ecto-Mycorrhizal Symbioses in *Populus*. **2017 DOE Genomic Sciences Meeting**, Tyson Corner, Virginia, USA, February 06—08, 2017.

J Chen, et al., **J Labbé**. Plant-Microbe Interfaces: *Populus* Genomics, Genetics and Molecular Biology. **2017 DOE Genomic Sciences Meeting**, Tyson Corner, Virginia, USA, February 06—08, 2017.

C Guennoc, A Deveau and **J Labbé**. "Biofilm formation in the mycorrhizal fungi– bacteria interaction." **16th International Symposium on Microbial Ecology**, Montreal, Canada, August 2016.

**Labbé J** et al. "Enacting a symbiotic relationship: plant lectin receptor-like kinase, a key player in ectomycorrhizal association." **2016 IS-MPMI XVII Congress**, Portland, Oregon, USA, July 2016.

**Labbé J** et al. "Bacterial-Fungal Interactions Workshop organizing committee/Discussion." **Bacterial-Fungal interactions workshop**, Paris, France, April 2016.

**Labbé J** et al. "Genome-wide Analysis of Lectin Receptor-like Kinases in the *Populus-Laccaria* symbiosis." **ECFG13**, Paris, France, April 2016.

**Labbé, J** et al. " 2016 Genomic Science Annual Contractor-Grantee Meeting." **2016 DOE Genomic Science Annual Contractor-Grantee Meeting**, Tyson Corner, Virginia, USA, March 2016.

Entler M and **Labbé J**. "Exploring the efficacy of the soil fungus *Mortierella elongata* in biofermentative applications." **BESC Retreat 2016**, Chattanooga, Tennessee, USA, June 2016.

Looney B, **Labbé J** and Matheny B. "Linking mycorrhizal genomes, transcriptomes, and proteomes to their function: from individuals to ecosystems." **ICOM8**, Flagstaff, Arizona, USA, August 2015.

**J Labbé**, Wellington Muchero et al. (2015) Genome re-sequencing reveals a species-specific whole-gene deletion associated with *Populus – Laccaria* mycorrhizal symbiosis **DOE JGI User meeting 10 Walnut Creek, CA**

**J Labbé** (2015) Investigating the fungal-bacterial interactions within the *Populus* microbiome. **Genomic Science Contractors-Grantees Meeting XIII/USDA-DOE** Sponsored by the U.S. Department of Energy Office of Biological and Environmental Research Biological Systems Science Division, Tyson, VA

**Before 2014:**

J Uehling, G Bonito, K Hameed, **J Labbé**, et al. (2014) Genomic analyses of *Mortierella elongata* and associated *Candidatus Glomeribacter* sp. bacterial endosymbiont. **12<sup>th</sup> European Conference on Fungal Genetics, Seville, Spain.**

Greg Hurst, Zhou Li, **J Labbé** et al. (2014) **Genomic Science Contractor-Grantee Meeting XII: “Plant-Microbe Interfaces: Proteomic Characterization of Endophyte and Rhizosphere Microorganisms and their Impacts on Plants.” U.S. Department of Energy (DOE), Washington D.C.**

Xiaohan Yang, Hengfu Yin, **J Labbé** et al. (2014) **Genomic Science Contractor-Grantee Meeting XII: “Plant-Microbe Interfaces: Discovery of Small Secreted Proteins in Populus in Response to Symbiotic Fungus Laccaria bicolor.” U.S. Department of Energy (DOE), Washington D.C.**

Wellington Muchero, Juan Wang, **J Labbé** et al. (2014) **Ninth Annual DOE Joint Genome Institute User Meeting: “Understanding the factors shaping microbial community structure within root and rhizosphere microbiome of Populus Species.” U.S. Department of Energy (DOE), Office of Science, Walnut Creek, California**

**J Labbé** et al. (2014) Plant-Microbe Interfaces: Tripartite plant-fungal-bacterial interactions. **DOE Genomics Science Awardee Meeting, U.S. Department of Energy (DOE), Washington D.C.**

W Muchero, J Wang, **J Labbé**, O Czarnecki, et al. (2014) Genome re-sequencing reveals a species-specific whole-gene deletion associated with *Populus-Laccaria* mycorrhizal symbiosis. **DOE JGI User Meeting Walnut Creek, CA**

W Muchero, J Wang, **J Labbé**, O Czarnecki, et al. (2014) Whole genome re-sequencing-enabled discovery and functional validation of allelic variants associated with cell wall chemistry and mycorrhizal symbiosis in *Populus*. **Plant and Animal Genome XXII Conference, San Diego, CA**

**J Labbé** et al. (2013) Plant-Microbe Interfaces: Dissecting *Populus*-fungal-bacterial systems. **Conferences Jacques Monod: Bacterial-Fungal interactions: a federative field for fundamental and applied microbiology, Roscoff, France**

C Guennoc, B Palin, **J Labbé**, A Deveau (2013) Investigating mycorrhiza helper bacteria determinants by screening *Pseudomonas fluorescens* BBc6R8 mutant library. **Conferences Jacques Monod: Bacterial-Fungal interactions: a federative field for fundamental and applied microbiology, Roscoff, France**

**J Labbé** et al. (2013) Plant-Microbe Interfaces: Deciphering the genetics of the ectomycorrhizal symbiosis *Populus-Laccaria*. **IUFRO Tree Biotechnology Conference, Asheville, NC**

**J Labbé** et al. (2013) Plant-Microbe Interfaces: Deciphering the genetics of the ectomycorrhizal symbiosis *Populus-Laccaria*. **Invited Seminar Duke University, Durham, NC**

**J Labbé** et al. (2013) Plants, Mycorrhizal Fungi, and Bacteria: deciphering an intimate alliance within a network of interactions. **Invited Seminar University of Tennessee, Knoxville, TN**

**Joint Meeting:** “Co-evolution of *Mortierella elongate* and its endosymbiotic bacterium.” **The American Phytopathological Society (APS)** and **The Mycological Society of America (MSA)**, Austin, Texas (August 10-14, 2013)

**26th New Phytologist Symposium “Bioenergy Trees”:** “Identification of Quantitative Trait Loci and targeting of genes affecting ectomycorrhizal symbiosis in the Poplar.” **National Institute of Agronomic Research (INRA)**, Nancy, France (May 17-19, 2011)

**Joint Meeting: Genomic Science Awardee Meeting XI and USDA-DOE Plant Feedstock Genomics for Bioenergy Awardee Meeting:** “Plant-Microbe Interfaces: Identification of Quantitative Trait Loci and Targeting of Genes Affecting Ectomycorrhizal Symbiosis in *Populus*.” **U.S. Department of Energy (DOE)**, Crystal City, Virginia (April 10-13, 2011)

**Joint Meeting: Genomic Science Awardee Meeting XI and USDA-DOE Plant Feedstock Genomics for Bioenergy Awardee Meeting:** “Plant-Microbe Interfaces: The Effect of Host Species, Genotype, and Edaphic Factors on Rhizosphere Fungi Associated with *Populus deltoides*.” **U.S. Department of Energy (DOE)**, Crystal City, Virginia (April 10-13, 2011)

**Joint Meeting: Genomic Science Awardee Meeting XI and USDA-DOE Plant Feedstock Genomics for Bioenergy Awardee Meeting:** “Plant-Microbe Interfaces: Bacterial and Fungal Communities Within the Roots and Rhizosphere of *Populus deltoides* in Upland and Lowland Soils.” **U.S. Department of Energy (DOE)**, Crystal City, Virginia (April 10-13, 2011)

**9th International Mycological Congress (IMC9: The Biology of Fungi):** “QTL detection and mycorrhizal genes targeting in the *Populus-Laccaria bicolor* interaction.” **British Mycological Society**, Edinburgh, UK (August 1-6, 2010)

**2nd Day of Beckman Coulter CEQ Users:** “Microsatellite markers and uses population genetics in ectomycorrhizal fungi.” **Beckman Coulter**, Paris, France (March 24, 2009)

**3rd Annual Meeting:** “Simple Sequence Repeat (SSR) markers in the ectomycorrhizal fungus *Laccaria bicolor* for population genetics of *Laccaria* species.” **EVOLTREE**, Baden, Austria (February 2-6, 2009)

**3rd Annual Meeting:** “Single Nucleotide Polymorphism (SNP) markers at loci related to adaptation in the ectomycorrhizal fungus *Laccaria bicolor*.” **EVOLTREE**, Baden, Austria (February 2-6, 2009)

**21st New Phytologist Symposium “The ecology of ectomycorrhizal fungi”:** “The development of simple sequence repeat markers in the ectomycorrhizal fungi *Laccaria bicolor* and *L. amethystina* for molecular ecology applications.” **Centre for Evolutionary & Functional Ecology (CEFE-CNRS)**, Montpellier, France, (December 10-12, 2008)

**21st New Phytologist Symposium “The ecology of ectomycorrhizal fungi”:** “Multi-scale structure of populations of the ectomycorrhizal basidiomycete *Laccaria amethystina* in Europe.” **Centre for Evolutionary & Functional Ecology (CEFE-CNRS)**, Montpellier, France, (December 10-12, 2008)

**Workshop: Linkage mapping and QTL analysis in tree species:** “Genetic linkage mapping in *Laccaria bicolor* S238N.” **Wageningen University**, Wageningen, Netherlands (April 7-12, 2008)

**Laccaria Genome Annotation Consortium:** “Symbiosis Insights from the Genome of the Mycorrhizal Basidiomycete *Laccaria bicolor*.” **INRA**, Carry-le-Rouet, France (December 11-14, 2006)

**Third Workshop of the Laccaria Genome Consortium:** “Construction of a genetic map of *Laccaria bicolor*.” **INRA-Nancy**, Nancy, France (April 4-5, 2006)

**Second Workshop of the Laccaria Genome Consortium:** “The most abundant Transposable Elements.” **VIB-Ghent University**, Ghent, Belgium (October 14, 2005)

**First Workshop of the Laccaria Genome Consortium:** “Biology, Ecology & Genetics of *Laccaria bicolor*.” **INRA-Nancy**, Nancy, France (April 2, 2005)

### ***Intellectual Property:***

Invention Disclosure: **201503591, DOE S-138,228**, Filamentous Fungi Capable of Degrading and Utilizing Lignocellulosic Wastes

Invention Disclosure: **201303169, DOE S-124,759** A lectin-like receptor kinase leads to enhanced mycorrhization in plants

Invention Disclosure: **201503575, DOE S-138,211** Complex of Mutualistic Microbes Designed to Increase Plant Productivity

Patent **P32682.3575.0** Complex of mutualistic microbes designed to increase plant productivity

### ***Synergistic Activities:***

Editorial Board member for EC Microbiology journal 2017-present

Member of the Genetic Society of America (membership) 2016-present

Associate Editor for Frontiers in Microbiology, specialty in Systems Microbiology 2012 - present

Review Board of the National Science Foundation Plant-Biotic Interactions program 2016

Review Board of the Polish National Science Centre (Narodowe Centrum Nauki - NCN) 2014-present

Review Board of the German Research foundation (Deutsche Forschungsgemeinschaft - DFG) 2014-present

Adjunct reviewer for *Nature Scientific reports*, *Applied Microbiology*, *African Journal of Biotechnology*, *Applied Microbiology and Biotechnology*, *Biological Bulletin*, *Environmental Microbiology and Environmental Microbiology Reports*, *Journal of Plant Pathology and Microbiology*, *Current Genetics*, *Life Science*, *Microbial Ecology*, *Mycologia*, *Mycopathologia*, *New Phytologist*, *Plos One*, *Silvae Genetica*, *Plant Systematics and Evolution*, *Virulence*, *Forests*, *FEMS Microbiology letters*, *Cellular & Molecular Biology Letters*, *GENE*, and *BMC Genomics*, *Frontiers Journals*

### ***Honors and Awards:***

- Scientific French Honor awarded by the French Consulate in Atlanta, GA (2016)

- Scientist visiting award 2013 granted by the Laboratory of Excellence ARBRE, France

- Second award of the 2010 Ph.D. - Thesis discerned by the Lorraine Council, France

- STAR Mentor 2010 recognition, ORNL and Siemens foundation for participating to the Siemens program: Preparing Science and Technology Leaders for the Future

- ASTRO Fellowship 2006 awarded by Oak Ridge Associated Universities (ORAU)/ORNL

- Graduate Student Fellowship for Innovative Science 2006-2009 awarded by INRA/Lorraine Region, France

### ***Graduate and Postdoctoral Advisors:***

Graduate Advisors – Francois Le Tacon and Francis Martin (INRA Nancy, France)

Postdoctoral Advisor – Gerald A. Tuskan (ORNL)

### ***Advisees:***

Former undergraduate Students – A. Jones Murry (Spelman College), S. Charles (Colorado College), D. Schlobinski (University of Marburg), Y. Ryback (Colgate University), C. Barillot (Lorraine University), R. Rose (University of Tennessee Knoxville), A. Norris (University of Tennessee Knoxville)

Former PhD. Advisees or Co-advisees – B. Looney (University of Tennessee Knoxville), J. Uehling (Duke University), C. Guennoc (Lorraine University)

Post bachelor: Peter Meidl (University of Tennessee Knoxville)

PhD. Advisees or Co-advisees – M. Entler (University of Tennessee)

PhD. Committee – E. Harrower (University of Tennessee Knoxville), J. Velez (University of Tennessee Knoxville)