
SPECIALTY AREAS

Comparative genomics, evolution of disease, organism adaptation

EDUCATION

2000-2005 Ph.D. Plant Pathology, University of California, Davis, CA
1997-2000 M.S. Agronomy Engineering, Bordeaux, France

POSITIONS HELD

Since Sept. 2013 Maître de Conference (equivalent to Assistant Professor) at University Paris-Sud 11, Orsay
2013- Aug. 2013 Visiting Researcher at the Museum d'Histoire Naturelle Paris
2009-2012 Visiting Assistant Professor, Biology Dept., Amherst College
2008 Senior Research Scientist, Qteros, Amherst
2007-2008 Research Scientist, Microbiology Dept, UMass Amherst
2007 Research Scientist, Biochem. Mol. Biology Dept, UMass Amherst
2005-2006 Postdoctoral Fellow, Atragene Bioinformatics, Genopole, Paris
2000-2005 Graduate Research Associate, University of California, Davis

FUNDING

2008 UMass College of Natural Sciences and Mathematics Excellence Initiatives (9 months support)
2005-2006 Genopole Postdoctoral Fellowship (1 year support)
2004 The California Competitive Grant Program for Research in Viticulture and Enology (0.5 year support)
2002-2004 California Grape Rootstock Improvement Commission, California Department of Food & Agriculture Research Assistantship (2.5 years support)
2001-2003 Viticulture Consortium Research Assistantship (2 years support)

AWARDS

2005 First place, Graduate Student Paper Award, American Phytopathological Society Pacific Division Meeting, Portland, Oregon
2005 Student Travel Award from the Pacific Division of the American Phytopathological Society, Portland, Oregon
2005 Graduate Student Travel Award from the Plant Pathology Department at the University of California, Davis to attend the American Society for Enology and Viticulture Meeting, Seattle, Washington
2005 Student Travel Award from the American Society for Enology and Viticulture, Seattle, Washington

- 2003 International Society for Computational Biology travel fellowship to attend the European Conference on Computational Biology, Paris, France
- 2003 American Society for Enology and Viticulture Scholarship
- 2001-2003 Jastro-Shields Graduate Research Scholarship Award

PATENTS

J. L. Blanchard, S. Leschine, **E. Petit**, and J. Fabel. 2010. Methods and compositions for improving the production of products in microorganisms. Patent *US20100028966*.

MEETINGS AND INVITED PRESENTATIONS

- 2014 Environmental genomics, Rennes, France
- 2011 Emerging Fungal Diseases Workshop, Roscoff, France
- 2011 Northeast Mobile DNA Meeting, Woods Hole, MA, USA
- 2011 Genetics, Epigenetics and Evolution of Sex Chromosomes Meeting, Paris, France
- 2009 European Society for Evolutionary Biology Conference, Torino, Italy
- 2008 University of Massachusetts, Microbiology Department, Amherst, MA, USA
- 2008 Boston Bacterial Meeting, Boston, MA, USA
- 2008 Michigan State University-East Lansing, Microbiology and Molecular Genetics, MI, USA.
- 2008 Clostridium10 Conference, Wagenigen, The Netherlands
- 2008 American Society of Microbiology Meeting, Boston, MA, USA
- 2007 Gordon Conference on Cellulases and Cellulosome, Andover, NH, USA
- 2006 Yale University, Department of Ecology and Evolutionary Biology, New Haven, CT, USA
- 2006 Williams College, Biology Department, Williams, MA, USA
- 2005 Cornell University, Department of Plant Pathology, Ithaca, NY, USA
- 2005 University of Connecticut, Molecular and Cell Biology Department, Storrs, CT, USA
- 2005 North Carolina State University, Department of Horticultural Science, Raleigh, NC, USA
- 2006 5th International Workshop on Grapevine Trunk Diseases, Davis, CA, USA
- 2005 American Society for Enology and Viticulture Annual Meeting, Seattle, WA, USA
- 2005 American Phytopathological Society, Pacific division, Portland, OR, USA
- 2006 5th International Workshop on Grapevine Trunk Diseases, Davis, CA, USA
- 2003 Soil fungi conference, Sacramento, CA, USA

PUBLICATIONS

1. **E. Petit**, M. V. Coppi, J. C. Hayes, A. Tolonen, T. Warnick, W. G. Latouf, D. Amisano, A. Biddle, S. Mukherjee, N. Ivanova, A. Lykidis, M. Land, L. Hauser, N. Kyrpides, B. Henrissat, D. Schnell, G. Church, S. B. Leschine and J. L. Blanchard. (ACCEPTED). *Clostridium phytofermentans* genome and transcriptome: A window on the direct conversion of plant biomass to fuels. PLoS ONE
2. **E. Petit** and W. D. Gubler. (IN PRESS). *Black foot disease of grapevine*. Compendium of Grapevine Diseases. Book Chapter.
3. G. Aguilera, D. M. de Vienne, O.N. Ross, M. E. Hood, T. Giraud, **E. Petit** and T. Gabaldón. 2014. *High variability of mitochondrial gene order in basidiomycetes*. Genome Biology and Evolution 6(2): 451–465.
4. A. Tolonen, **E. Petit**, J. L. Blanchard, T. Warnick, and S. B. Leschine. 2013. Technologies to study plant biomass fermentation using the model bacterium *Clostridium phytofermentans*. Biol. Convers. Biomass Fuels Chem. Explor. Nat. Util. Syst. Chapter 7.
5. F. Abdul-Rahman, **E. Petit**, J. L. Blanchard. 2013. The distribution of polyhedral bacterial microcompartments suggests frequent horizontal transfer and operon reassembly. Journal of Phylogenetics & Evolutionary Biology 1:118.
6. B. Büker, **E. Petit**, D. Begerow, and M.E. Hood. 2013. *Experimental hybridization and backcrossing reveal forces of reproductive isolation in Microbotryum*. BMC Evolutionary Biology 13:224.
7. B.P.S. Nieuwenhuis, S. Billiard, S. Vuilleumier, **E. Petit**, M. E. Hood, and T. Giraud. 2013. *Evolutionary advantages and drawbacks of uni- versus bifactoriality in mating type determinism*. Heredity 1-11.
8. A. K. Gibson, **E. Petit**, J. Mena-Ali, B. Oxelman, and M. E. Hood. 2013. *Life-history strategy defends against disease and affects physiological resistance*. Ecology and Evolution 3: 1741-1750.
9. M. E. Hood, **E. Petit**, and T. Giraud. 2013. *Extensive divergence between mating type chromosomes of the anther-smut fungus*. Genetics 193: 309–315.
10. **E. Petit**, W. G. LaTouf, M. V. Coppi, T. A. Warnick, D. Currie, I. Romashko, S. Deshpande, D. J. Schnell, S. B. Leschine, and J. L. Blanchard. 2013. *Involvement of a bacterial microcompartment in the metabolism of fucose and rhamnose by Clostridium phytofermentans*. PLoS ONE e54337.
11. **E. Petit**, T. Giraud, D. M. de Vienne, M. A. Coelho, G. Aguilera, J. Amselem, J. Kreplak, J. Poulain, F. Gavory, P. Wincker, S. K. Young, C. Cuomo, M.H. Perlin, and M. E. Hood. 2012. *Linkage to the mating-type locus across the genus Microbotryum: Insights into non-recombining chromosomes*. Evolution 66: 3519–3533.

12. **E. Petit**, E. Chung, A. Pedersen, J. Antonovics and M.E. Hood. 2012. *Variation in resistance to multiple pathogen species: anther-smuts of Silene uniflora*. Ecology and Evolution 2: 2304–2314. (COVER IMAGE)
13. F. Horns, **E. Petit**, R. Yockteng, M. E. Hood. 2012. *Patterns of repeat-induced point mutation in transposable elements of basidiomycete fungi*. Genome Biology and Evolution 4: 240-247.
14. **E. Petit**, E. Barriault, K. Baumgartner, W. Wilcox, P. Rolshausen. 2011. *Cylindrocarpon species associated with black-foot of grapevine in the Northeastern United States and Southeastern Canada*. American Journal of Viticulture and Enology 62: 177-183.
15. **E. Petit** and W. D. Gubler. 2007. *First report of Cylindrocarpon liriodendri causing black foot disease of grapevine in California*. Plant Disease 91 (8): 1060.
16. **E. Petit** and W. D. Gubler. 2006. *Influence of Glomus intraradices on black foot disease caused by Cylindrocarpon macrodidymum on Vitis rupestris under controlled conditions*. Plant Disease 90 (12): 1481.
17. **E. Petit** and W. D. Gubler. 2005. *Characterization of Cylindrocarpon species, the cause of black foot disease of grapevines in California*. Plant Disease 89 (10): 1051.
18. W. D. Gubler, K. Baumgartner, G. T. Browne, A. Eskalen, S. R. Latham, **E. Petit**, and L. A. Bayramian. 2004. *Root diseases of grapevines in California and their control*. Australasian Plant Pathology 33 (2): 157-165.
19. M. L. Gleason, **E. Petit**, S. N. Wegulo, and H. G. Taber. 1999. *Evaluation of SkyBit data input to the Melcast disease-warning system for control of watermelon anthracnose*. Fungicide and Nematicide Tests 55:289.

TEACHING

AWARDS

2011-2012 Postdoctoral fellow selected for FIRST IV (Faculty Institute for Reforming Science Teaching)

CLASSES TAUGHT

University Paris-Sud

2014 Biodiversity and evolution (Biol 102, Sophomore level): Instructor
2014 Evolution and diversity of metazoans (Biol 308, Senior level): Instructor
2013 Structures to functions: from cells to organs (Biol 209, Junior level): Instructor
2013 Diversity, origin of life, evolutionary approaches (Biol 209, Junior level): Instructor
2013 Population genetics (Biol 312, Senior level): Instructor

Amherst College

2012 Disease ecology (BIOL 410, Senior level): Instructor
2011 Disease ecology (BIOL 410, Senior level): Instructor
2009 Genome biology (BIOL 380, Senior level): Instructor
2006 Genome biology (BIOL 380, Senior level): Guest lecturer

University of Massachusetts, Amherst

2007 General microbiology (Microbio 310): Guest lecturer

University of California, Davis

2002 Introductory mycology (PLP 148): Teaching assistant

STUDENTS MENTORED

University Paris-Sud

2014 Jerome Bourret, M.S. Biology.
2014 Elie Cambou, M. S. Biology.

Amherst College

2012 Casey Silver, B. S. Biology.
2012 Mindy Wang, B. S. Biology. Current position: Corps member, City Year, NY
2011 Britta Buker, M. S. Biology. Current position: Ph. D. candidate, Ruhr-University Bochum, Germany
2011 Morgan Toy, B. S. Biology.
2011 Felix Horns, B. S. Biology. Current position: Ph. D. candidate, Computational biology, Stanford, CA
2010 Cami Farkas, B. S. Biology. Current position: M. S. candidate, Biomedical Science, Tufts, Boston, MA
2009 Daniel Peterson, B. S. Biology. Current position: Ph. D. candidate, OEB and Entomology programs, University of Massachusetts, Amherst, MA
2009 Erin Chung, B. S. Biology. M. D. candidate, University of Wisconsin, Madison, WI

University of Massachusetts, Amherst

2007 Supriya Deshpande, Intern. Current position: Ph. D. candidate, Biological Sciences Program, City of Hope

SERVICE**Reviewer for the journals**

PLOS ONE

Journal of Phytopathology

Plant Disease

European Journal of Plant Pathology

Professional society memberships

International Society for Computational Biology

European Society for Evolutionary Biology

American Phytopathological Society

American Society for Microbiology

American Society for Viticulture and Enology

Other

Co-organizer of “Adaptation of eukaryotes to environmental changes” (2014)

Co-organizer of a series of workshops on “High-throughput sequencing” (2014, secured \$13,000 support)

Representative of the graduate students of the plant pathology department at the University of California, Davis, (2002, 2003)

Organizer of the plant pathology annual public exhibit at University of California, Davis (2001, 2002)