

## Post-doctoral Position in Metabolomics and Proteomics of Tree Resistance to Pathogens and Insects

A postdoctoral position is available immediately in the Department of Plant Pathology, The Ohio State University (OSU), to use metabolomic and proteomic approaches to study the mechanistic basis of systemic induced resistance (SIR) and cross-effects between pathogens and insects in pine. Part of the project is to assess the effects of nutrient availability on host defense responses associated with SIR. The project is a cooperative effort between the labs of Enrico Bonello (Plant Pathology, OSU, <http://plantpath.osu.edu/faculty-and-staff/faculty-directory/bonello-pierluigi-enrico>), Dan Herms (Entomology, OSU, <http://entomology.osu.edu/personnel/single.asp?strid=287>), and Don Cipollini (Biological Sciences, Wright State University, <http://www.wright.edu/~don.cipollini>). Candidates for this position should have a strong record of accomplishment in the areas of molecular plant-microbe or plant-insect interactions, with emphasis on metabolomics/proteomics and modern bioinformatics. Experience working with woody plants is desirable but not necessary. The department and the university offer state of the art facilities and the position provides a competitive salary and full benefits. The position is initially available for one year and is renewable, contingent upon availability of funding.

To build a diverse workforce, Ohio State University encourages applications from individuals with disabilities, minorities, veterans, and women. EEO/AA employer.

Interested persons should send a complete CV, including the names of at least three references, to Dr. Pierluigi (Enrico) Bonello, Dept. of Plant Pathology, The Ohio State University, 201 Kottman Hall, 2021 Coffey Road, Columbus, OH 43214, USA; tel - +1-614-688-5401; fax - +1-614-292-4455; email: [bonello.2@osu.edu](mailto:bonello.2@osu.edu).

### Recent Publications

- Barto, E.K., S. Enright, A. Eyles, C.M. Wallis, R. Chorbajian, R. Hansen, D.A. Herms, P. Bonello and D.F. Cipollini. 2008. Effects of soil fertility on systemic protein defense responses of Austrian pine to attack by a fungal pathogen and an insect defoliator. *Journal of Chemical Ecology* 34:1392-1400.
- Bonello, P., N. Luchi, P. Capretti, and M. Michelozzi. 2008. Host-mediated effects of *Heterobasidion annosum* s.s. infection on severity of *Diplodia pinea* tip blight in Italian stone pine (*Pinus pinea* L.). *Tree Physiology* 28, 1653–1660.
- Wallis, C.M., Eyles, A., Chorbajian, R., McSpadden-Gardner, B.B., Hansen, R., Cipollini, D.F., Herms, D.A. and P. Bonello. 2008. Systemic induction of phloem secondary metabolism and its relationship to resistance to a canker pathogen in Austrian pine. *New Phytologist* 177, 767–778.
- Eyles, A., R. Chorbajian, C.M. Wallis, R.C. Hansen, D.F. Cipollini, D.A. Herms, and P. Bonello. 2007. Cross-induction of systemic induced resistance between an insect and a fungal pathogen in Austrian pine over a fertility gradient. *Oecologia* 153, 365-374.
- Blodgett, J. T., A. Eyles, and P. Bonello. 2007. Organ-dependent induction of systemic resistance and systemic susceptibility in *Pinus nigra* inoculated with *Sphaeropsis sapinea* and *Diplodia scrobiculata*. *Tree Physiology* 27, 511-517.
- Bonello, P., T. R. Gordon, D. A. Herms, D. L. Wood, and N. Erbilgin. 2006. Nature and ecological implications of pathogen-induced systemic resistance in conifers: A novel hypothesis. *Physiological and Molecular Plant Pathology* 68, 95-104.
- Wang, D., A. Eyles, and P. Bonello. 2006. Systemic aspects of host-pathogen interactions in Austrian pine (*Pinus nigra*): a proteomics approach. *Physiological and Molecular Plant Pathology* 68, 149-157.