

# BIOLS SEMINAR SERIES

## 北京生命科学研究院精品讲座

报告时间：2012年4月17日（星期二）上午10:00

报告地点：中科院动物研究所B105会议室

报告题目：Exploiting scents of distress: The prospects of using herbivore-induced plant odours to improve the biological control of important crop pests.

报告人：Ted C. J. Turlings 教授（University of Neuchâtel, Switzerland）

欢迎广大科研人员和研究生光临！



Dr./Prof. Ted C. J. Turlings is the head of Laboratory of Fundamental and Applied Research in Chemical Ecology (FARCE) and the Vice-director (finances) of the Institute of Biology, University of Neuchâtel. And he is also the director of the National Centre of Competence in Research (NCCR) Plant Survival and head of the Interuniversity Doctoral Program of Organismal Biology.

He has authored or coauthored approximately 110 publications. He is one of pioneers in the field of Chemical Ecology of plant-insect interactions and Evolutionary Ecology. His honors include: Bronze medal from the International Society of Chemical Ecology for the organization of their 25th annual meeting in 2009 in Neuchâtel; Award the 2008 Prix Delwart of the Belgian Royal Academy of Sciences; Nominated par appel to full professor at the Institute of Biology at the University of Neuchâtel;

Invited to give the honorary 2008 Sawicki lecture at the Rothamsted Research Institute, UK; Invited to give the honorary 2007 C.V. Riley lecture at the University of Missouri; Invited member of the College of Reviewers for the Canada Research Chairs program and START-fellowship from the Swiss National Science Foundation in 1996.

### Key Publications

- 2012. A specialist root herbivore exploits defensive metabolites to locate nutritious tissues. *Ecology Letters* 15: 55-64.
- 2009. The underestimated role of roots in defense against leaf attackers. *Trends in Plant Science* 14: 653-659.
- 2009. Restoring a maize root signal that attracts insect-killing nematodes to control a major pest. *Proc. Natl. Acad. Science USA* 106: 13213-13218.
- 2008. A maize (E)- $\beta$ -caryophyllene synthase implicated in indirect defense responses against herbivores is not expressed in most American maize varieties. *Plant Cell* 20:482-494.
- 2007. Simultaneous feeding by aboveground and belowground herbivores attenuates plant-mediated attraction of their respective natural enemies. *Ecology Letters* 10: 926-736.
- 2006. A maize terpene synthase contributes to a volatile defense signal that attracts natural enemies of maize herbivores. *Proc. Natl. Acad. Science USA* 103: 1129-1134.
- 2005. Recruitment of entomopathogenic nematodes by insect-damaged maize roots. *Nature* 434: 732-737.
- 1997. An elicitor of plant volatiles from beet armyworm oral secretion. *Science* 276: 945-949.
- 1995. How caterpillar-damaged plants protect themselves by attracting parasitic wasps. *Proc. Natl. Acad. Science USA* 92: 4169-4174.
- 1990. Exploitation of herbivore-induced plant odors by host-seeking parasitic wasps. *Science* 250: 1251-1253.

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