

Peter Neumann

Foundation Vinetum Professor for Bee Health, University of Bern,
Switzerland



Key research and expertise

Peter did an MSc and PhD in honey bee, *Apis mellifera*, molecular ecology in Germany (FU Berlin, MLU Halle-Wittenberg) and then moved to Rhodes University, South Africa for a post doc focussing on intra- and interspecific parasitism using Cape honey bees and small hive beetles as model systems. He returned to Germany as an Emmy Noether fellow carrying on with his studies on host-pathogen interactions in honey bees. After his Habilitation in Zoology, Peter moved to the Swiss Bee Research Centre, Agroscope, where he broadened his research on honey bee pathogens. In 2008, Peter was elected as Chair of the COST Action COLOSS (prevention of honey bee Colony LOSSes). COLOSS evolved since into a global association for promoting the well-being of managed honey bees (www.coloss.org) and Peter still coordinates its activities as the President. In 2013, Peter was appointed Professor in Bee Health at the Vetsuisse Faculty University of Bern. His current research focusses obviously on bee health, specifically on pathogens. Peter's past and present work covers several aspects related to bee health. In particular, his international networking activities have proven successful in standardising of methods and assembling large-scale international studies on bee health.

Focus on P. Neumann's publications

- Neumann P, Blacqui re T (2017) The Darwin cure for apiculture? Natural selection and managed honey bee health. *Evol Appl* 10: 226–230.
- Neumann P, Pettis JS, Sch fer MO (2016) *Quo vadis Aethina tumida*? Biology and control of small hive beetles. *Apidologie* 47(3): 427-466. DOI: 10.1007/s13592-016-0426-x.
- Straub L, Villamar-Bouza L, Bruckner S, Chantawannakul P, Gauthier L, Khongphinitbunjong K, Retschnig G, Troxler A, Vidondo B, Neumann P, Williams GR (2016) Neonicotinoid insecticides serve as inadvertent insect contraceptives. *Proc R Soc L B* 283: 20160506. <http://dx.doi.org/10.1098/rspb.2016.0506>.
- Straub L, Williams GR, Pettis JS, Fries I, Neumann P (2015) Superorganism resilience: Eusociality and susceptibility of ecosystem service providing insects to stressors. *Current Opinion in Insect Science* 12: 109–112.
- Retschnig G, Williams GR, Odemer R, Boltin J, Di Poto C, Mehmman MM, Retschnig P, Winiger P, Rosenkranz P, Neumann P (2015) Effects, but no interactions, of ubiquitous pesticide and parasite stressors on honey bee (*Apis mellifera*) lifespan and behaviour in a colony environment. *Environmental Microbiology* 17(11): 4322-31. DOI: 10.1111/1462-2920.12825.
- Aebi A, Vaissier  BE, van Engelsdorp D, Delaplane K, Roubik DW, Neumann P (2012) Back to the future: *Apis* vs. non-*Apis* pollination. *Trends Ecol Evol* 27: 142-143.
- Dainat B, Evans JD, Chen YP, Gauthier L, Neumann P (2012) Dead or alive: Deformed wing virus and *Varroa destructor* reduce the life span of winter honey bees. *Appl Environ Microbiol* 78: 981-987.
- Dainat B, Evans JD, Chen YP, Gauthier L, Neumann P (2012) Predictive markers of honey bee colony collapse. *PLoS ONE* 7(2): e32151.
- Dietemann V, Pflugfelder J, Anderson D, Charri re JD, Chejanovsky N, Dainat B, de Miranda J, Delaplane KS, Dillier FX, Fuchs S, Gallmann P, Gauthier L, Imdorf A, Koeniger N, Kralj J, Meikle W, Pettis J, Rosenkranz P, Sammataro D, Smith D, Ya ez O, Neumann P (2012) *Varroa destructor*: research avenues towards sustainable control. *J Apic Res* 51: 125-132.
- Neumann P, Ya ez O, Fries I, de Miranda JR (2012) *Varroa* invasion and virus adaptation. *Trends in Parasitology* 28: 353-354.
- Aebi A, Neumann P (2011) Endosymbionts and honey bee colony losses? *Trends Ecol Evol* 26: 494.
- Neumann P, Carreck N (2010) Honey bee colony losses. *J Apic Res* 49: 1-6.