



# Spotlight: BEE DOC

COLOSS works in close collaboration with the research consortium BEE DOC to disseminate information related to honey bee health, as well as to coordinate the wikiCOLOSS BEEBOOK on the COLOSS website ([coloss.org/beebook](http://coloss.org/beebook)).

BEE DOC, funded by the EU 7<sup>th</sup> Framework Programme, has spent the past 4 years studying honey bee health, specifically the potential impact of interactions among parasites, pathogens, and pesticides on honey bees.

As the consortium agreement reaches an end, a number of major outcomes and achievements can be highlighted.

**The mite *Varroa destructor*, in combination with viruses, is the main threat to honey bee colony survival in Europe.**

**Interactions among parasites, pathogens, and pesticides can impact individual honey bee health.**

**Gut parasites *Nosema* spp. can also affect honey bee health, but are not major stressors.**

## Additional Specific Achievements

- Identified gene expression profiles and novel resistance genes for *Nosema ceranae*.
- Identified bacteria that promote honey bee survivorship.
- Developed two honey bee health diagnostic tools.
- Determined suppression of mite reproduction conveys resistance to *Varroa* mites.



BEE DOC members met in Halle, Germany in February to finalize reports and to discuss knowledge transfer.