

# Fighting pesticide pollution with microbes

## Tiny organisms can serve as an early warning system for ocean health

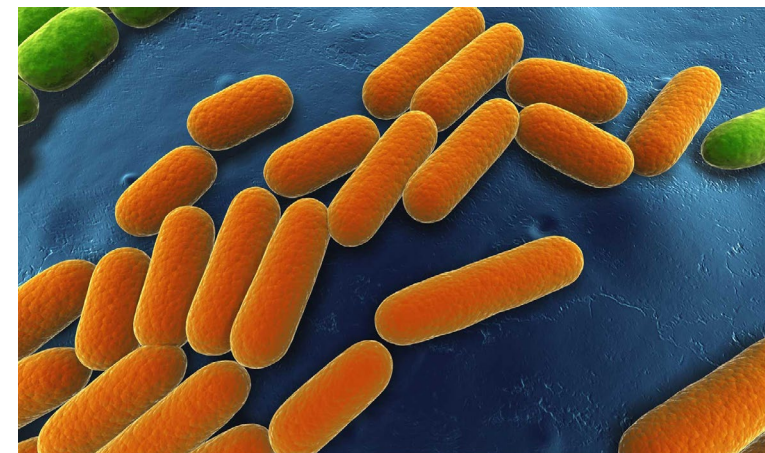
Pesticides used in agriculture are a major threat for soil and water ecosystems. Although microbes can break down pesticides, it is still not well understood which microbes do this and how they do it. This research project will develop novel approaches to answer these questions, and will help identify ways to better monitor the environment for pesticide contamination, to remove pesticides from the environment, and to design greener chemicals.

## The power of EMBL's cutting-edge technology and scientific expertise

This project enabled studying microbes that degrade pesticides by first establishing a chemical library of 1033 agricultural pesticides – a unique research resource not previously available.

EMBL scientists developed advanced analytical methods and large-scale field protocols for the development of bioindicators. This new information may lead to the use of microbes as a biological way to better remove pesticide contamination, monitor pesticide pollution, and design greener chemicals. ERI support also helped to secure further funding ([the EMBL ARISE Fellowship](#)) to continue this project through 2024.

(Budget used so far: €32,000)



*Plankton – tiny organisms that absorb pollutants in the ocean – can help act as an early warning system, telling us which pollutants are starting to damage marine ecosystems.*

### Project contact

Dr. Richard Jacoby  
Postdoctoral (ARISE) Fellow  
+49 6221 387 8742  
[richard.jacoby@embl.org](mailto:richard.jacoby@embl.org)  
[www.embl.org](http://www.embl.org)



**Project duration:** 12 months  
**Project budget:** €32,000

**Contact us:** [eri@embl.org](mailto:eri@embl.org)