
# GENETICALLY MODIFIED NITROGEN FIXING BACTERIA AND USES THEREOF

View U.S. Patent No. 12,391,627 in PDF format.

**WARF: P200066US04**

Inventors: Jean-Michel Ané, John Peters, Florence Mus, Devanshi Khokhani

## The Invention

A genetically modified bacterium for excreting fixed nitrogen (in the form of ammonia) is disclosed. The bacterium can be made by deleting at least a portion of the nifL gene of a diazotrophic y-proteobacterium, and inserting a promoter sequence into the diazotrophic y-proteobacterium genome that is placed and oriented to direct transcription of the rnfl gene complex. The resulting genetically modified bacterium excretes ammonia constitutively and at a greater rate than the wild type bacterium, and can be used to make biofertilizers to stimulate plant growth. The biofertilizers may contain a culture of the bacteria, or a co-culture of the bacteria and a mycorrhizal fungus.

## Additional Information

**For More Information About the Inventors**

- Jean-Michel Ané

**Tech Fields**

- Animals, Agriculture & Food : Plant biotech
- Animals, Agriculture & Food : Plant health

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842