

Prestigious European Research Grant for Microbiologist Mike Jetten

Mike Jetten, professor Ecological Microbiology at Radboud University Nijmegen and linked to the Darwin Center for Biogeology, received an ERC Advanced Investigator Grant of 2.5 million euro. The Advanced Grant of the European Research Council (ERC) is one of the most prestigious European research grants award to individual scientists.

The ERC Advanced Grant was awarded to Mike Jetten for his proposal *Anaerobic ammonium oxidizing bacteria: unique prokaryotes with exceptional properties*. He will use this grant to extend his successful research on anammox bacteria. In addition to oxygen-limited marine ecosystem, he will try to detect anammox bacteria in terrestrial ecosystems, hydrothermal vents and hot springs. Furthermore he will try to better understand the role and contribution of anammox bacteria in the oceanic nitrogen cycle. Two post docs and 3 new PhD students will be able to work in this project.

Fundamental and applied research

Since 2000 Mike Jetten is full professor Ecological Microbiology and scientific director of the Institute for Water and Wetland Research at the Radboud University Nijmegen. The research of Jetten's group is focused on the discovery of novel (anaerobic) microbes that play an important role in the biogeochemical cycles of nitrogen and methane. This research is unique in the Netherlands. The anammox bacteria have remarkable properties: they are able to produce hydrazine (a rocket fuel), they have an organelle and ladderane lipids.

Mike Jetten cooperates on the application of anammox bacteria in waste water treatment with Paques and the TU Delft, where he has an appointment as extra-ordinary professor in environmental microbiology. This cooperation already resulted in the implementation of four full scale anammox reactors. Together with the Royal Netherlands Institute for Sea Research (NIOZ), Max Planck Institute for Marine Microbiology Bremen (Germany), IFREMER (Brest France) and University of California (Los Angeles USA) he studies the role of anammox bacteria in various marine ecosystems. Several expeditions to oxygen-limited upwelling zones showed that anammox bacteria may produce half of the nitrogen gas in the Earth's atmosphere.

Jetten already received several awards for his research, most notably a fellowship of the Royal Academy of Arts and Sciences (KNAW) and Talent Stipendium of the Netherlands organization for Scientific Research (NWO). Mike Jetten (born in 1962 in Roermond) studied Molecular Sciences at Wageningen University, where he also graduated in 1991 with the highest distinction (summa cum laude) on a PhD study of anaerobic acetate metabolism of methanogenic Archaea. From 1991 tot 1994 he was a post doc at the Massachusetts Institute of Technology (Cambridge, USA), and from 1994 – 2000 Mike Jetten was assistant professor at TU Delft.

Contact

prof. dr. ir. Mike Jetten: telephone + 31 (0)6-24703662 or +31 (0)24 365 2941 (e mail: m.jetten@science.ru.nl). Prof. dr. ir. Mike Jetten is professor ecological microbiology at Radboud University Nijmegen, Scientific director of IWWR and extra-ordinary professor environmental microbiology at TU Delft.

Scientific news desk Radboud University Nijmegen: tel. + 31 (0)24 361 60 00

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