

Microbiologist hits pay dirt

June 22 2007

The current edition of science journal *Nature* describes how Macquarie University microbiologist Dr Belinda Ferrari has been the first scientist worldwide to culture a particular family of bacteria in the lab, by growing it in mud instead of the traditional agar solution.

"Being able to culture bacteria is incredibly important to scientists in our continuous search for new antimicrobial drugs and for enzymes that will naturally perform a whole range of functions, from creating foods to eliminating pollution," Ferrari explains.

"Nevertheless, we can only grow less than one per cent of the world's bacterial species using traditional microbiological techniques, so I'm one of a small number of scientists worldwide trying to culture these bacteria in environments that mimic the conditions they normally grow in."

Over a number of years Ferrari - who is considered a world leader in the development of novel cultivation strategies for undescribed bacteria - has been perfecting the soil slurry membrane culturing system for a bacterial family known as TM7, which are found naturally in both soil and, curiously, in the human mouth.

"We've not yet discovered what the function of TM7 is, but it's only a matter of time now that we're able to observe it growing under controlled conditions," Ferrari says. "We're at the dawn of a new exciting era of discovery - the biotechnological potential hidden among the 99 per cent of the bacteria in soil that are currently non-culturable is immense."

Source: Macquarie University

Citation: Microbiologist hits pay dirt (2007, June 22) retrieved 28 April 2024 from
<https://phys.org/news/2007-06-microbiologist-dirt.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.