

Guardian
Unlimited
FreshInfo[Sign in](#) | [Register](#)

Go to:

GuardianUnlimited The Guardian

Home	UK	Business	Online	World dispatch	The Wrap	Weblog	Talk	Search
The Guardian	World	News guide	Arts	Special reports	Columnists	Audio	Help	Quiz

The Guardian
UK news

Search this site

Click here

Online
For the latest
internet news
click hereWheels
For the latest news
and views on cars
click here

In this section

Scientists see big role for uranium clean-up bug

Alok Jha, science correspondent

Friday December 12, 2003

[The Guardian](#)

Scientists have sequenced the DNA of a bacterium which can help to remove uranium from contaminated groundwater.

The work shows that the microbe is far more flexible than they had thought, and has raised the hope that it could soon be used in large decontamination operations.

The *Geobacter sulfurreducens* is part of a family of microbes which make metal compounds less soluble in water. They occur naturally in contaminated water, and scientists have been looking for ways to enhance their growth. By sequencing the bacterium's genes, the researchers at the University of Massachusetts say, they have been able to learn more about how the microbes survive and how their growth can be stimulated.

Their work is published today in the journal *Science*.

"This microbe can sense and move towards metallic substances, and in some cases can survive in environments with oxygen," said Dr Barbara Methé, the leader of the sequencing project. Previously it was thought that the microbe could only survive in environments without oxygen, which would limit its usefulness.

When the bacterium is at work a small electrical charge is created, suggesting that the process could run equipment in remote locations.

[Retiring Soham jury told to put aside feelings](#)

[Gulf troops put at risk by failures](#)

[Ruffled feathers in battle of Trafalgar](#)

[Train delays 'no better' report finds](#)

[Police foiled major terror attacks in UK, Met claims](#)

[Big payout for inmate who said he was raped](#)

[Pumps give hope to young heart patients](#)

[Schools facing leadership vacuum](#)

[Express editor joins rival group](#)

[An eye-opener with nods to Bob Dylan, overambitious architects and pigeons](#)

[Schütte rises above a mixed bunch](#)

[Captain Hook's first adventure](#)

[In brief](#)

[Women marrying younger men](#)

[Weigh the lies, find the truth, judge tells jury](#)

[Tube control centre was](#)

Dr Methe says at the current pace of research large-scale clean-up of metals using the microbe could be in operation within five years.

Full text

[Drinking water inspectorate annual report](#)

Useful links

[UK water industry](#)

[Ofwat](#)

[Printable version](#) | [Send it to a friend](#) | [Save story](#)



['ill-equipped' for blackout](#)

[Lone parents to face
fewer barriers to work](#)

[Getaway criminal who
killed PC gets 13 years](#)

['Widest ever' consultation
on future role of BBC](#)

[What makes humans
unique? It's in the ear](#)

[Scientists see big role for
uranium clean-up bug](#)

[Not tipsy, just reeling from
busy genes](#)

[Cupid in the cupboard](#)

[The Guardian profile: Sir
Christopher Frayling](#)

[Woman and girl hurt in
gun attacks](#)

[Prevention strategy takes
effect](#)

[Hot summer hit bird
population](#)

[Father sues over false
memory](#)

[Regulator gives Network
Rail extra £7bn](#)

[Soham jury retires to
consider verdict](#)



Guardian Unlimited © Guardian Newspapers Limited 2003