

Brachybacterium netajii

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Brachybacterium netajii Latest News

A team of researchers recently discovered a tough, new species of bacteria named *Brachybacterium netajii* in the waters of the River Ganges.

About *Brachybacterium netajii*

- It is a new species of **bacteria**.
- It was discovered from the **Hooghly** (a distributary of the **Ganges**) region of **West Bengal**.
- It possesses a remarkable ability to **break down toxic chemicals** and **survive heavy metal pollution**.
- It can **safely degrade p-nitrophenol (PNP)**, a **toxic industrial chemical**, and boasts extreme resilience, **surviving high concentrations of toxic heavy metals** like arsenic, cadmium, lead, and mercury.
- It is also **halotolerant**, meaning it can **withstand highly salty environments** containing up to 9% salt.
- Its cellular makeup is unique. It **features specific fatty acids in its cell structure**, notably ones known as C11:0 and C10:0 2-OH, which are absent in its closest relatives.

- Its genome is packed with **unique genomic islands, chunks of DNA** likely **absorbed from other organisms**.
 - They contain **instructions for producing industrial enzymes and natural protective shields**, such as a compound called **ectoine** that **helps it survive extreme environmental stress**.

News: RM

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