causing the bacteria to glow under a microscope.

Several other pathogens produce these nuclease enzymes, suggesting that the approach could be customized to detect specific species of bacteria.

***Nature Med.*** **http://doi.org/rcf (2014)**

NEUROSCIENCE

## How marijuana boosts eating

A specific receptor in the brain explains how hunger improves sense of smell and drives feeding behaviour in mice.

To probe the mechanism that links hunger, olfaction and eating, Giovanni Marsicano at the French National Institute of Health and Medical Research in Bordeaux and his colleagues focused on the $CB_1$ receptor, which is activated by a number of molecules, including THC, the active ingredient in marijuana. They found that the receptor is expressed in neurons that reach into the brain's olfaction centre. Blocking this receptor in mice that had fasted for 24 hours decreased their food intake. Stimulating the receptor with THC boosted sensitivity to odours and feeding in the hungry animals.

The $CB_1$ olfactory circuitry could offer a target for the treatment of eating disorders, the authors say.

***Nature Neurosci.*** **http://dx.doi.org/10.1038/nn.3647 (2014)**

KONRAD STEFFEN/CIRES/UNIVERSITY OF COLORADO/AMAP

MICROBIOLOGY

## CRISPR takes out bacterial species

Researchers have used molecules involved in precise gene editing to selectively remove specific bacterial strains from mixed cultures, based on the microbes' DNA sequences.

The CRISPR gene-editing system uses RNA molecules from bacterial immune systems that recognize and cut foreign DNA. Chase Beisel and his colleagues at North Carolina State University in Raleigh engineered these molecules to target DNA sequences from individual strains of *Escherichia coli* and *Salmonella* in pure and mixed cultures. They showed that their strategy could distinguish between strains sharing more than 99% of their genetic content, and could remove specific bacteria.

This approach could one day lead to the development of antibiotics that pinpoint harmful bacteria and leave beneficial ones alone, the authors say.

***mBio*** **5, e00928-13 (2014)**

CRYOSPHERE

## Glacier reaches record speed

Greenland's fastest-moving glacier has gained the highest flow speed ever observed in any sea-bound glacier in Greenland or Antarctica.

Jakobshavn Isbræ (**pictured**) in West Greenland has been retreating since the mid-1990s. Using high-resolution satellite radar observations to map the glacier's movements since 2009, Ian Joughin at the University of Washington in Seattle and his colleagues report that it has sped up by 30–50% in the past two years. In the summer of 2012, the glacier reached a record pace of more than 17 kilometres per year — four times greater than during the 1990s.

***The Cryosphere*** **8, 209–214 (2014)**

## COMMUNITY CHOICE

*The most viewed papers in science*

MENTAL HEALTH

## Greener spaces mean better living

HIGHLY READ on Twitter in the past month

People who move from urban areas with less vegetation to places with more report improved mental health.

Mathew White and his colleagues at the University of Exeter Medical School in Truro, UK, used British Household Panel Survey data to analyse the change in mental health scores over five years for people who had moved from one urban residential area to another during that time period. The researchers controlled for changes in individual's lives, such as employment and marital status, and found that moving to a leafier area led to an immediate and sustained improvement in mental health.

People who moved to less green areas reported worse mental health, but returned to their baseline level after the move.

***Environ. Sci. Technol.*** **48, 1247–1255 (2014)**

CLIMATE CHANGE

## Pacific winds slow warming

An unprecedented strengthening of the Pacific trade winds over the past two decades has altered ocean circulation and could help to explain the current plateau in global temperatures.

Matthew England at the University of New South Wales in Australia and his colleagues used a global climate model to look at the impact of the stronger winds. Their model suggests that the fiercer trade winds help to cool the central and eastern Pacific while driving warm water into the deeper ocean in the west. They found that the wind effect cooled global temperatures by 0.1–0.2 °C in 2012 compared to a control run without increased trade winds.

Models assessed by the Intergovernmental Panel on Climate Change have generally overestimated recent warming trends. However, the authors suggest that if stronger trade winds are factored in, the climate models tally with the observed temperature changes.

***Nature Clim. Change*** **http://dx.doi.org/10.1038/nclimate2106 (2014)**

MATERIALS

## Asteroids prove hard to weld

Future space colonists hoping to make structures out of local materials will face a serious construction challenge: metal-rich asteroids are not suited to current welding techniques.

Electron-beam welding has been used in space to join materials such as steel, but it was unknown whether the technique would work on extraterrestrial materials. John Elmer and his colleagues at the Lawrence Livermore National Laboratory in California welded a fragment of the Canyon Diablo meteorite — a 57,000-tonne iron-rich rock that hit Arizona 50,000 years ago — using an electron beam under a vacuum. High levels of phosphorous in the meteorite created cracks as the weld cooled, and the high carbon content made the weld harder than the surrounding material, leading to a weak joint.

***Sci. Technol. Weld. Join.*** **http://dx.doi.org/10.1179/1362171813Y.0000000188 (2014)**

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