

BEST FROM SCIENCE JOURNALS: MEMORY WITHOUT A BRAIN

Relevant for: Science & Technology | Topic: Science and Technology- developments and their applications and effects in everyday life

Physarum polycephalum | Photo Credit: [Wikimedia commons](#)

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[Published in PNAS](#)

How does the slime mold *Physarum polycephalum*, with no nervous system, save memories? How does it remember where it found food and which environments were harmful? Researchers found that the network-like tubes in the body of the organism encode this information. "These tubes grow and shrink in diameter in response to a nutrient source, thereby imprinting the nutrient's location in the tube diameter hierarchy," says the paper.

[Published in Circulation](#)

Do you want a long healthy life? Start eating five daily servings of fruits and vegetables (two servings of fruit and three servings of vegetables). Green leafy vegetables, citrus fruits, berries and carrots showed benefits; while peas, corn, fruit juices and potatoes were not associated with a reduced risk of death. Researchers arrived at this recommendation after studying over 100,000 adults for 30 years and also analysing 26 studies that included about 1.9 million people from 29 countries.

[Published in Current Biology](#)

Most people prefer their ice-cream to be creamy and not frozen. Though the flavour is the same, the change in texture makes it less appetizing. By studying fruit flies, researchers have now found that a family of proteins called OSCA/TMEM63 plays an important role in sensing particle sizes in food. These proteins are also found in humans and researchers say that the new findings could help shed light on some of the nuances of our own sense of taste.

[Published in Nature Communications,](#)

Researchers from China have discovered a rice plant variant called *astol1* that thrives in arsenic-contaminated fields. The team exposed about 4,000 rice variants to water containing arsenic and found that the grains of the *astol1* plant accumulated far less arsenic than other plants.

[Published in Nature Communications](#)

If you thought hurricanes on land were scary, meet space hurricanes that have been seen in the upper atmosphere of Earth. In 2014, using satellite data, researchers saw a hurricane several hundred kilometres above the North Pole. Now the team has created 2D and 3D images of the 1,000 km-wide swirling mass. The analysis revealed that the space hurricane was spinning in an anticlockwise direction and lasted almost eight hours before gradually breaking down.

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