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by a force similar to the strong nuclear force.

Gang Li at Peking University in Beijing and his co-authors propose that the mystery signal is produced by a particle similar to the Higgs boson, but six times more massive. And Won Sang Cho at the Institute for Basic Science in Daejeon, South Korea, and his collaborators propose that the two photons would be only part of the debris produced by a potentially much more massive particle.

More data are needed to confirm whether this is a sign of a new particle or merely a statistical bump.

Phys. Rev. Lett. 116, **151804; 151802; 151803; 151805 (2016)**

VIROLOGY

Zika protein structure solved

Scientists have elucidated the structure of a key protein that helps the Zika virus to infect cells.

George Gao and Yi Shi of the Chinese Academy of Sciences in Beijing and their colleagues crystallized the NS1 protein (**pictured**) from the Zika virus involved in the 2015 outbreak in Brazil. They report that the protein has structural similarities to those found in closely related viruses such as the dengue and West Nile viruses. But NS1 has some key differences from these related proteins — most notably, a different pattern of electric-charge distribution in a region that interacts with host cells.

The team suggests that the structural differences could explain the diversity of symptoms caused by Zika and related viruses in humans.

Nature Struct. Mol. Biol. **http://dx.doi.org/10.1038/nsmb.3213 (2016)**

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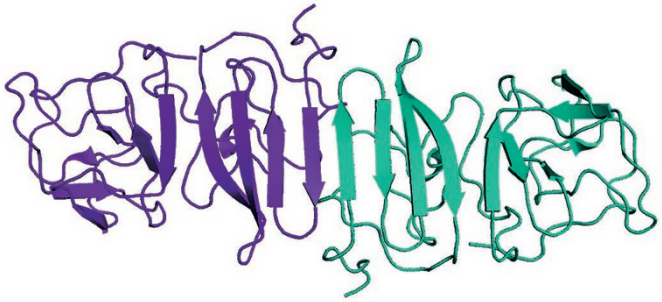


MATERIALS

High efficiency for solar cell

A solar cell made of organic materials has reached record efficiency in converting sunlight into electrical energy.

Organic solar cells could be cheaper and more flexible than silicon-based ones, but they are less efficient. To boost efficiency, Jianhui Hou at the Chinese Academy of Sciences in Beijing, Feng Gao at Linköping University in Sweden and their colleagues made a device by combining the polymer PBDB-T with a small molecular compound known as ITIC. The cell, measuring 1 square centimetre, had an efficiency of 10.78% under standard conditions — a record for an organic device of this size, and close to the record of 11.5% for all polymer-based devices.

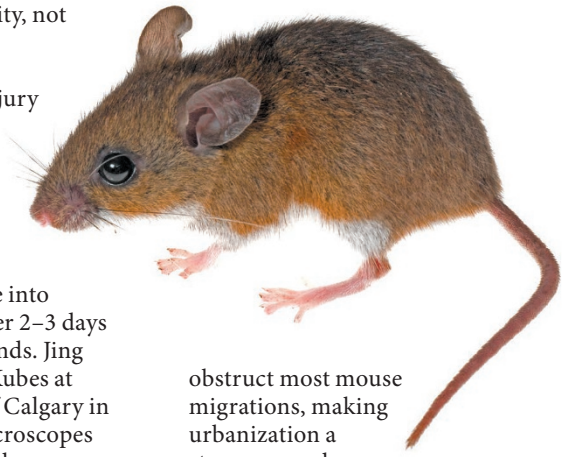
Because the cell does not use large, relatively expensive molecules known as fullerenes, it could be cheaper to produce than the current best polymer-based devices.

Adv. Mater. **http://doi.org/bd7p (2016)**

IMMUNOLOGY

Immune cells move in fast

A type of immune cell quickly moves into the liver to aid tissue repair — but the cells come from the surrounding cavity, not from the blood.



Immune cells responding to injury have long been thought to migrate into tissues from the bloodstream. Some of these cells then mature into macrophages over 2–3 days to help heal wounds. Jing Wang and Paul Kubes at the University of Calgary in Canada used microscopes to follow macrophages over time in live mice that had sustained a liver injury. They found that mature macrophages moved into the liver from the surrounding cavity within just one hour. There, the macrophages helped to clear the injured area of dying cells so that new blood vessels could grow.

The team identified the molecular signals that drove this process, and suggest that it could occur in liver infection and in diseases such as cancer.

Cell **http://doi.org/bd8b (2016)**

EVOLUTION

Town mice differ from country ones

Urbanization can shape the evolution of the wild mouse in as little as 400 years.

Jason Munshi-South of Fordham University in New York and his colleagues analysed the genomes of 191 white-footed mice (*Peromyscus leucopus*; **pictured**) in 23 populations from both rural and urban areas in and around New York City. They conclude that the urban mice diverged from rural populations less than 400 years ago, when people began to urbanize New York. Genetically isolated mouse populations in large city parks, such as Central Park, split from other city populations around the time that the parks were first built.

Roads and buildings obstruct most mouse migrations, making urbanization a strong enough selective pressure to affect the evolutionary history of organisms, the authors say.

Biol. Lett. 12, **20150983 (2016)**

CLIMATE CHANGE

Storms intensify in the centre

Researchers studying the effects of global warming on rainstorms have found that warmer air redistributes moisture towards the middle of storms, focusing heavy rain over a smaller land area.

Ashish Sharma of the University of New South Wales in Sydney, Australia, and his colleagues analysed data from 1,300 rain gauges and 1,700 temperature stations across Australia to test how air temperature affects the intensity and spatial organization of storms. They found that atmospheric moisture was more concentrated near the storm centre in warm storms than in cooler ones, resulting in more intense peak precipitation in that area.

Storms that extend over a smaller area but release increasingly intense rainfall in a warming climate might boost local flood risk and severity, the authors conclude.

Geophys. Res. Lett. **http://doi.org/bd7s (2016)**

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