

[Register for the open AHAW meeting](#)

Registration is open for observers to attend the [10-11 May plenary meeting](#) of EFSA's Scientific Panel on Animal Health and Welfare, in Parma, Italy. If you are unable to attend the meeting in person but would like to follow the open sessions, you can watch via our dedicated web stream. Registration closes on 1 May for people who wish to attend the meeting in person and on 4 May for those who would like to follow proceedings online.

[Register here](#)

[China experiments human stem cells in cargo spacecraft](#)

China is conducting stem cell experiments to investigate the possibility of human reproduction in space aboard cargo spacecraft Tianzhou-1, according to the Tianzhou's engineer.

The experiments include the studies of the proliferation and differentiation of stem cells, the differentiation of germ cells, and the impact on bone cells of a microgravity environment, said Li Xuzhi, deputy chief designer of the space application system of China's manned space program.

Scientists on the ground will remotely control the research equipment, and receive the images of the cells under the microscope.

Experiments in microgravity will provide theoretical ground and technical support for the study of the human reproduction in space, said Li.

Other experiments on Tianzhou-1 include the research on fluid evaporation and condensation in a microgravity environment, in-orbit tests of a high-precision electrostatic accelerometer and others, added Li.

Tianzhou-1 started its five-month journey in space Thursday evening.

The ship will dock with China's orbiting Tiangong-2 space lab, and provide fuel and other supplies before falling back to Earth.

West End Timebank



The West End's Timebank, Time2Give, sadly disbanded over a year ago. Timebanking is a means of exchange used to organise people and organisations around a purpose, where time is the principal currency.

For every hour participants 'deposit' in a timebank, perhaps by giving practical help and support to others, they are able to 'withdraw' equivalent support in time when they themselves are in need. In each case the participant decides what they can offer.

It is a great, community-based, concept and there was originally great enthusiasm towards getting the West End timebank off the ground. It ran well for a time and it was a real pity it came to an end.

I spoke some time ago with Jimmy Mooney who runs the Broughty Ferry Timebank (Ferry Time) and Jimmy advised that some West End residents were taking part in the Broughty Ferry group now given the lack of a West End group.

Jimmy is keen to encourage more West End residents to register with the group where they will be recognised as members from the West End.

For further information, please call him on 07975 943863.

Scientists to test medicine for bone loss on Tianzhou-1

Scientists will test a medicine to treat bone loss during the maiden voyage of China's first cargo spacecraft Tianzhou-1.

The medicine has been specially developed for astronauts, but they hope it will benefit ordinary people too.

The main mission of Tianzhou-1 launched on Thursday is to test propellant refueling technology, which is crucial for the construction and operation of

China's planned space station. But each voyage is a precious opportunity to conduct space experiments.

Chinese scientists will use the micro-gravity environment to test the effect of 3-hydroxybutyric acid (3HB) in preventing osteoporosis, said research leader Chen Guoqiang, who is also director of the Center for Synthetic and Systems Biology at Tsinghua University.

Normally, the solid structure of bone tissue is stimulated and maintained by gravity and physical exercise. But the micro-gravity environment in space eases the load on bones, causing rapid bone loss and osteoporosis, Chen said. "One day of bone loss in space is equivalent to a year on earth," he said.

Research shows astronauts suffer average monthly bone loss of 0.5 percent to 2 percent in space, especially in weight-bearing bones such as the tibia, femur and vertebrae. Back on earth, they can take double or triple the time of their flight period to recover. Sometimes bone loss is permanent.

Micro-gravity mainly inhibits the differentiation of osteoblasts (bone-forming cells), which is accompanied by the mass growth of osteoclasts (bone-resorbing cells), causing bone structure to change, said Chen.

Standard drug treatments for osteoporosis have a range of side effects, including tumors or cardiovascular diseases. The medicines are also relatively ineffective for treating osteoporosis caused by micro-gravity.

Chen said 3HB is one of the main components of ketone bodies, which occur naturally in mammals. It had been used to treat epilepsy for many years. "We found that 3HB can promote bone formation," said Chen.

In an experiment simulating the micro-gravity environment, the effect was obvious. Unlike the chemical synthetic 3HB for treating epilepsy, Chen's team use microbial fermentation to produce 3HB, which has entirely the same structure as the 3HB naturally existing in the human body. So it's safer than chemical synthetic drugs, Chen said.

Experiments simulating the micro-gravity environment have been conducted on the ground. Scientists hung up mice by their hind legs, and found that those given 3HB had normal bones, while those without suffered serious bone loss. "We hope to test the effect of the medicine in a real space micro-gravity environment," Chen said.

Since Tianzhou-1 cannot carry animals, scientists will compare the osteoblast cell samples treated and not treated with 3HB. Microscope images of the samples will be transmitted to earth.

Although China has conducted many experiments on the Shenzhou series spacecraft and the Tiangong-1 and Tiangong-2 space labs, opportunities for space experiments are still rare.

"After more than a decade of research we have one chance to conduct an experiment in space. We cherish the chance. We hope Chinese scientists will have more opportunities to conduct experiments in China's space station in

future,” Chen said.

Scientists believe the science and technologies developed in space exploration can benefit ordinary people. For instance, modern baby diapers were originally developed for astronauts on extended space walks. And the intensive care unit (ICU) system was first developed to monitor astronauts preparing to go to the moon in the 1970s.

The medicine for treating bone loss could also be used by ordinary people.

Osteoporosis is the seventh most common disease in the world. Each year it causes 8.9 million cases of fractures worldwide.

China has 90 million osteoporosis sufferers. The morbidity of osteoporosis among Chinese over 60 years old is 56 percent, while the rate among postmenopausal women is between 60 percent and 70 percent.

With China’s aging population, osteoporosis cases will continue to rise. Experts estimate the number of patients in China will reach 200 million in 2050, accounting for 13.2 percent of the total population. “We hope to solve this global problem,” Chen said.

Press release: High fines for illegal fishing

On 13 April 2017, at Barkingside Magistrates court, Billy Cox was fined £300 for fishing without the required number of rod licences, with costs of £127 and a victim surcharge of £30 imposed after a prosecution by the Environment Agency.

Magistrates heard that on 8 September 2016, an Environment Agency enforcement officer found Billy Cox fishing with 3 rods and lines at White Hart Lakes, Dagenham. He was only able to produce one valid licence and further licence checks confirmed that he did not have a second licence to cover the use of his third rod. At the time of the incident a rod licence permitted the use of up to 2 rods and lines which was clearly stated in the terms and conditions supplied with the licence. He was reported for the offence of not being able to produce the required number of licences when challenged by the bailiff.

Billy Cox was convicted in his absence.

Darren Wakenell, of the Environment Agency, said:

The majority of anglers fish legally and purchase a fishing licence. We invest the money from fishing licences back into fisheries improvements, fish stocks and fishing, this is essential

for the future of the sport.

The minority of anglers that fail to buy a fishing licence are cheating their fellow anglers and the future of the sport. In addition, fishing licence cheats risk a criminal conviction, a significant fine and could lose their fishing equipment.

During 2015-2016 the Environment Agency checked more than 62,000 fishing licences and prosecuted more than 1,900 anglers for rod and line offences resulting in fines and costs in excess of £500,000.

Anyone witnessing illegal fishing incidents in progress can report them directly to the Environment Agency hotline, 0800 80 70 60. Information on illegal fishing and environmental crime can also be reported anonymously to Crimestoppers on 0800 555 111.

You need a valid Environment Agency fishing licence if you are aged 12 or over and fish for salmon, trout, freshwater fish, smelt or eel in England.

Junior fishing licences (aged 12-16) are now free, but you must still get a [fishing licence online](#).

Contact

For media enquiries please call us on 0800 141 2743.

Or email us at southeastpressoffice1@environment-agency.gov.uk