solution for certain types of human male infertility."

This discovery will provide a potential

Wang Jian, deputy director of the Shanghai Institute of Planned Parenthood Research

Athlete found guilty of doping

Pentathlon Association said on Sunday that its leadership respects the decision made by the Court of Arbitration for Sports concerning Chinese athlete Chen Qian.

association announced that the court had found Chen guilty of doping, annulling her result at the 2016 Olympic Games in Rio de Janeiro, where she finished fourth. It did not name the banned drug that led to the decision.

"We will seriously deal with the doping incident involving Chen Qian and draw lessons from it," an association statement said.

"We will show no mercy in the punishment of those responsible," the statement



We have long been firmly against doping and take a zero-tolerance approach to doping."

Chinese Olympic Committee

The pentathlon group admitted the incident had underlined a complicated and difficult situation facing anti-doping efforts in the Chinese modern pentathlon and laid bare loopholes in the association's fight against doping.

The CMPA must and will reflect on its work; keep alarm bells ringing; anti-doping measures, including education, management, scrutiny and punishment; and build a defense line that allows no blind spots, in order to effectively prevent, crack down and punish any doping offenses," the statement said.

The Chinese Olympic Committee said on Sunday that it will conduct a investigation into the matter.

The committee condemned Chen's doping offense as a violation of sporting ethics and the Olympic spirit, saying members respect the CAS decision and will punish those responsible for the

The committee reiterated its stance of having zero tolerance toward doping in

"We have long been firmly against doping and take a zero-tolerance approach," the organization said in a statement, "We have made it very clear that we want to ensure fair play and the well-being of athletes."

XINHUA

Military jet takes step toward export

Design allows aircraft to be used as a trainer or for combat, its maker says

By YANG JUN in Guiyang and HOU LIQIANG in Beijing

A domestic aircraft manufacturer rolled out its first plane for export, a trainer for fighter jet pilots, on Monday in Anshun, Guizhou province.

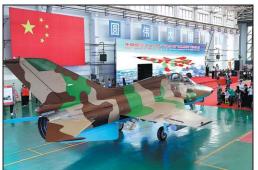
The aircraft - a modified Mountain Eagle, based on the earlier JJ-7 trainer jet — was developed by Guizhou Aviation Industry Group, a sub-sidiary of Beijing-based Aviation Industry Corp of China.

The Mountain Eagle was first put into use in China in 2010 after making its first

flight in 2003. The version that was rolled out on Mon-day has been modified with

Hu Jianxing, chief designer for Guizhou Aviation, said the company has adjusted some features of the Mountain Eagle, including its weapons system and seats, to make it more adaptable for combat scenarios.

It can be used to train fighter pilots in peacetime and be equipped with various types of missiles for use as a fighter in wartime, said Wang Wenfei, the company's president. All spare parts and components



A modified Mountain Eagle, a trainer for fighter jet pilots, rolls out in Anshun, Guizhou province, on Monday. YUE SHUHUA / FOR CHINA DAILY

It's easy and safe to operate,

for the aircraft are made in

he said, adding that countries Wang said the basic design with high trust for China are has held up well for 14 years. willing to buy the modified

version because of its per-formance and cost-effective-

The Mountain Eagle can be used for training pilots at various skill levels. A supersonic aircraft, it can engage in both air-to-air and air-to-ground missions, the company said in a statement.

The company didn't disclose which countries have ordered the aircraft, but said it won its first export contract in January 2016.

The rollout of the new Mountain Eagle is a first important step forward for exports. A number of assessments, including experiments and test flights, still need to be done, said AVIC Deputy General Manager Chen Yuanxian at the launch ceremony.

"I hope Guizhou Aviation Industry Group can make every effort to continue their work on exporting the air-craft and make sure they hand high quality products to clients on time," he said.

Primary research on the Mountain Eagle began in the 1990s, and development offi-cially began in 2001.

The plane showed up at the China International Aviation and Aerospace Exhibition in Zhuhai, the only international aerospace in China trade show endorsed by the Chinese central government, in 2006 and

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Petrochemical blast



Firefighters work to put out a blaze at a petrochemical plant in Linyi, Shandong province, on Monday. Eight people were killed and nine others were injured in an explosion and subsequent fire at around 1 am. As of 4 pm, the fire had been put out, with secondary disasters unlikely, according to the emergency rescue headquarters. The injured were being treated at a hospital, according to the rescuers.

3 pandas born in Japan come home

By HUANG ZHILING

in Chengdu huangzhiling@ chinadaily.com.cn

Three giant pandas that returned from Japan will meet visitors after a monthlong quarantine is completed at the Chengdu Research Base of Giant Panda Breeding in Sichuan province.

Two experienced keepers will care for Hai Bang, Yang Bang and You Bang in their new residence opposite the main office building of the base, said information offi-

cer Chen Cheng.

The panda residence is in the base's old animal hospital, which has no other panda inhabitants, she said.

To help the trio adapt, a Japanese keeper will stay at the base for several days. The keeper brought some

One major reason for their return is that they have reached a sexually mature age and need partners."

Chen Cheng, information officer at the Chengdu Research Base of Giant Panda Breeding

water and bamboo from Japan, as the pandas were accustomed to it.

"Their Japanese food might be slightly different from that in the base," Chen said.

Zhang Hemin, executive director of the China Conservation and Research Center for the Giant Panda in Wenchuan county, Sichuan, said pandas born overseas should have no problem with their new Chinese home, as the species has a marked ability to adapt to new environments

The three pandas were born at the Adventure World amusement park in Shirahama, Wakayama prefecture, Japan, in 2010 and

Hai Bang, a male, and Yang Bang, a female, are twins. Their mother, Liang Bang, now lives in Japan; she was born in 2000.

"One major reason for their return is that they have reached a sexually mature age and need partners," Chen said.

Back in 1994, with the

approval of China's central government, the base began collaborating on panda research and breeding with Adventure World.

Fifteen panda cubs have been born in the park. Eight of them were previously sent to the Chengdu base, Chen said.

Under an agreement for global giant panda preservation, pandas born overseas belong to China and must be returned to the country after they turn 2.

Chen declined to comdas born in Japan had their stay extended for such a long time.

Before their departure from Japan, a grand send-off ceremony was held at Adventure World, and around 1,200 Japanese fans said goodbye.

Belarus, cutting the time of the

traditional sea route in half. A

travel nearly 10,000 kilometers

train departed from Harbin

earlier this month and will

in around 16 days before

Study: Infertile males can blame gene mutations

By ZHOU WENTING

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Scientists in Shanghai have discovered that a mutation at a specific location in a gene mainly active in male reproductive cells - leads to male infertility. And they've figured out how it works, which is likely to bring new insights into treat-

The scientists discovered that infertility results when a key step in the development of sperm cells is obstructed by the mutation at a domain called "D-box" on the gene Hiwi. Their findings were published recently on the website of the scientific journal Cell, which is based in the United States.

Before a sperm cell matures, the histones in genomic DNA must transform into another form automatically, so that the genetic materials from the male are stored in the sperm head in a safer and more condensed way, explained Liu Mofang, the lead researcher on the team at the Institute of Biochemistry and Cell Biology, a branch of the Chinese Academy of Sciences Shanghai Institutes for Biological Sciences.

"But the mutation hindered the transformation from taking place during the late stages of sperm formation, which results in a drastic decrease in the number of sperm, abnormal structure of the sperm head and sperm viability loss," Liu said.

There are many types of gene mutations that appear to correlate with human male infertility. However, only a handful of such mutations have been scientifically proved to result in

researchers successfully overrode the obstruction by inserting a certain part of a protein into the sperm cell of mice with the mutation. "The sperm will thus restore

In their lab experiments, the

normal structure and activity," Liu said

According to one scientific reviewer of the research, "The observation of human Hiwi mutations in azoospermia is extremely exciting and provides a clear context for disease rele-

Wang Jian, deputy director of the Shanghai Institute of Planned Parenthood Research, said it's widely acknowledged in medical circles that problems in males are a factor in half the infertility cases around the

"A low number of sperm, low activity of sperm and malformation of sperm are important reasons that cause male infertility, but the strategies for diagnosis and treatment are quite limited so far," Wang said. "This discovery will provide a potential solution for certain types of human male infertility."

Liu said the mutation is either acquired from the male subject's mother or happens for unknown reasons before he is

"If a mother carries the mutation, she is able to give birth, because the mutation doesn't affect women's fertility. But if she gives birth to a boy, he stands a 50-percent chance of inheriting the mutation from his mother," she said.

A test for the mutation could be included in voluntary premarital health checks through blood testing in the future, Liu

Goodbye to pet



ment on why the three pan-

Chen Haoming from Wuhan, Hubei province, donates a hawksbill sea turtle to Wuhan Haichang Polar Ocean World on Monday. The turtle, an endanger species and a second-class national protected animal, was a gift from a friend and had been kept as a pet, according to Haoming's father, who will move with his family to work in another city. MIAO JIAN / FOR CHINA DAILY

Briefly

4 killed, 3 injured after boat overturns

Four people died and three others were injured after a ferryboat overturned on Monday, local authorities said. The boat carrying 39 farmers on board overturned on a river in Huoqiu county, according to the county government. Another 32 have been rescued. The captain of the boat is in police custody.

2 sentenced for selling fake Moutai

Two people have been sen-

tenced and fined for making and selling fake versions of Moutai, a well-known Chinese liquor brand. The defendants, surnamed Zhang and Yang, were sentenced to three and a half years and three years, respectively, with a threeyear reprieve, according to

the Guizhou Provincial Peo-

Freight train links to Belarus

HEILONGJIANG

A freight train route has been put into operation between Heilongjiang province and

reaching Minsk, the Belarus

XINHUA