a closely related species to spawn so that they can consume their eggs.

Suzanne Gray of Simon Fraser University in Burnaby, Canada, and her colleagues report four instances in which a male *Telmatherina sarasinorum* was seen courting a female *T. antoniae*. The females were seen quivering, which is normally indicative of egg release. When each female finished quivering, the male immediately turned around and tried to eat her eggs.

Gray terms this behaviour 'sneaky egg-eating' and suggests it may have arisen in part because of a paucity of rich nutritional sources in Lake Matano, the Indonesian waterway where the fish live.

HUMAN HISTORY

Digging up data

Proc. Natl Acad. Sci. USA **105,** 10693–10698 (2008)

Agriculture began in a region of the Middle East known as the Fertile Crescent. That it diffused across Europe as human populations did is broadly accepted. But how it moved into southern Africa has been little studied.

Brenna Henn of Stanford University, California, and her colleagues examined the frequency of two alternative versions of part of the Y-chromosome in 13 African populations. They also compared 10 short, repeating DNA sequences known as 'microsatellites', which vary in number across populations.

The analysis shows that early farmers in what is now Tanzania bred with local populations in south-central Africa. This suggests that pastoralism and some types of cultivation were spread across the continent by people who practised them, rather than by word of mouth — and debunks the idea that farming reached southern Africa from the west.

IMMUNOLOGY

Successful delivery

Cell doi: 10.1016/j.cell.2008.06.034 (2008)

Researchers have for the first time reversed symptoms of HIV infection in a living animal using the technique of RNA interference. They constructed an antibody that targets T cells — in which HIV lurks — and linked it to a peptide carrying small RNA molecules, called siRNAs. The peptide helps these siRNAs enter T cells, where they silence certain host and virus genes crucial to the virus's replication.

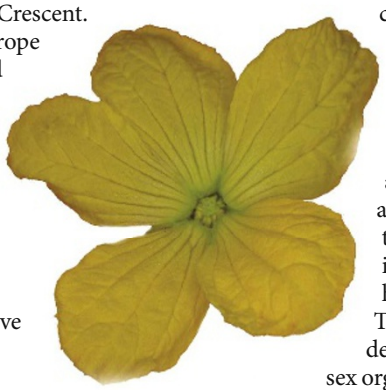
Premlata Shankar, now at the Texas Tech University Health Sciences Center in El Paso, Sang-Kyung Lee of Hanyang University in Seoul, South Korea, and their colleagues injected the construct into mice genetically engineered to be easy to infect with HIV. The construct protected the mice from infection. It also restored the suppressed immune systems of mice that bore HIV-infected immune cells.

GENETICS

Appendages of note

Science **321,** 836–838 (2008)

In about 4,000 species of flowering plant, individuals can grow both male and hermaphrodite flowers. This curious trait is called andromonoecy, and it has evolved on many separate occasions. Now, Abdelhafid Bendahmane of the National Institute for Agronomic Research in Evry, France, and his colleagues reveal the genetic mechanism behind this strategy in the melon *Cucumis melo* (pictured left).



SCIENCE

They found that andromonoecy results from a single base change in a gene that encodes an enzyme that is involved in producing a hormone called ethylene. This hormone inhibits the development of a plant's male sex organs. Andromonoecious melons have two copies of the altered gene, and consequently produce less enzyme. This means that any female flowers they would otherwise have grown are turned into hermaphroditic blooms.

MATERIALS SCIENCE

Light beat

Soft Matter doi:10.1039/b805434g (2008)

A polymer developed at Wright-Patterson Air Force Base in Ohio can move up and down as fast as a hummingbird's flapping wings when it is hit with laser light.

Timothy Bunning and his collaborators prepared a network of liquid crystal polymer containing azobenzene molecules, which act as linking groups. The bonds in these azo groups change reversibly from one geometrical form to another when exposed to ultraviolet laser light of a certain wavelength. This makes the polymer bend like a cantilever. As the laser's power is cranked up the cantilever moves faster. If polarizing laser light is shone on the cantilever, it moves through a different angle.

JOURNAL CLUB

Francis Albarede
Ecole Normale Supérieure, Lyon, France

A geochemist wonders about the Solar System's true age.

Scientists have long looked at the constituent elements of meteorites to find out how old the Sun and its planets are. The most perfect example of the oldest meteorites — those that formed at the same time as the planets — broke up and fell as a large shower near Pueblito de Allende in Mexico in 1969. This was named the Allende chondrite, and was recently the subject of a study by Jim Connelly of the University of Texas at Austin and his colleagues.

Meteorites are often dated by measuring how much aluminium-26 they contain. This isotope decays at a rate that allows researchers to tell when one meteorite is older than another, but too fast to work out these rocks' absolute ages. For the relative ages to be accurate, however, aluminium-26 must have been spread evenly among the protoplanetary debris from which meteorites were born. If it was not, this isotope would reflect where they formed as well as when they formed, and meteorite chronologies would be higgledy piggledy.

But true ages can be calculated from lead isotopes. Until recently, lead had not been measured in both of two common parts of the oldest meteorites — chrondules and calcium–aluminium-rich inclusions — for any one rock, and there was no way of telling whether different rocks formed in the same bit of the nascent Solar System. But the lead isotopes in both chrondules and calcium–aluminium-rich inclusions can be counted in Allende.

Connelly and his team have confirmed an age difference between the chondrules and calcium–aluminium-rich inclusions that had been inferred from aluminium-26 measurements. This means that the relative meteorite chronologies are correct, and that aluminium-26 was indeed evenly distributed when the Sun ignited (J. N. Connelly *et al. Astrophys. J.* **675,** L121–L124; 2008). If this is right, then the Solar System must be 4,567.5 million years old.

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