



another planet definition committee, chaired by astronomer and historian Owen Gingerich of Harvard University. The group met on 30 June for two days at the Paris Observatory. "We converged relatively quickly after the first day," says panel member Richard Binzel of the Massachusetts Institute of Technology.

A definition based on gravity, the group concluded, made the most scientific sense. "It

involves the most physics," Binzel says.

To acknowledge that trans-neptunian objects are different to the other planets, the committee proposed a subcategory of planets known as 'plutons'. These are planets that take more than 200 years to orbit the Sun and would include Pluto, Charon and UB<sub>313</sub>.

The number of planets is likely to rise as more large trans-neptunian objects are found. After Ceres, other asteroids may also be eligible. Such changes may upset generations who grew up with nine planets. "If I have any concern, it's that the public will accept this," says astronomer Ron Ekers, president of the IAU.

Binzel thinks there are ways around that. "My expectation is that children will memorize the eight classical planets, they will know that Ceres is a planet in the asteroid belt, and that there's a whole collection of planets out beyond Neptune, of which Pluto is the first."

Convincing fellow astronomers may not be easy either. "There will be a long line of people waiting for the microphone to denounce it," Boss predicted before he had heard details of the proposal. "I think there's a good chance nothing will be decided formally."

That prospect dismays those who have been working on the new definition. "This is a very good compromise," says Binzel, "and it's time to move forward." ■

Jenny Hogan

With additional reporting by Geoff Brumfiel

**Discuss the IAU proposal on what makes a planet — and propose your own mnemonic for what could be the new 12 planets — on Nature's newsblog, [blogs.nature.com/news/blog](http://blogs.nature.com/news/blog). See also the Editorial on page 719.**



#### INTERNATIONAL AIDS MEETING

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## Homing in on the genes for humanity

Researchers have identified a gene that has changed rapidly during human evolution — a discovery that could be a step towards understanding what sets us apart from other animals.

The work, reported online this week in *Nature*, is some of the first to come from comparing the human genome with that of the chimpanzee, which was published last September. The gene, called *HAR1F*, does not directly code for a protein. Instead, it lies in a non-coding segment of the genome and produces RNA. Many geneticists believe that rapidly evolving non-coding regions harbour the secret of what makes humans different from our nearest primate relatives.

*HAR1F* is produced by cells in the brain called Cajal–Retzius cells, which regulate how the six layers of the cortex are laid down during development. The gene may interact with a protein called reelin, which plays a vital role in this layering. "But it's wild speculation," says geneticist David Haussler of the University of California, Santa Cruz, who led the study.

The group identified the gene by comparing the human genome with those of the chimpanzee, mouse and rat. Forty-nine segments, dubbed 'human accelerated regions' or HARs, showed sequence changes in the human version but not in the other animals. The greatest change was found in *HAR1*, which in humans had undergone 18 substitutions in comparison with the other animals when one or none was expected (D. Haussler *et al.* *Nature* doi:10.1038/nature05113; 2006).

What the gene does is a mystery, but there are some guesses. "Given that it's changed so dramatically only for humans, it might be involved in human-specific brain wiring," says Gerton Lunter at the University of Oxford, UK.

One thing is becoming clear: protein-coding genes may not be the movers and shakers of human evolution scientists once thought. "We should stop looking at proteins and start looking at non-coding DNA," says Lunter. "Everything points in that direction." ■

Kerri Smith

J. UZON/AFP/GETTY



This year's AIDS conference focused on new preventive methods.

#### Industry Liaison Forum.

Trial results can also be complicated when counselling, provided with the trial, cuts the rate of new infections. For instance, the first completed

trial of oral prevention drugs, reported at the meeting, tested whether the oral drug tenofovir prevented new infections in 936 women mainly in Ghana. But too few people became infected, so

it was difficult to tell whether the drug actually worked, said Leigh Peterson of Family Health International, which conducted the trial with money from the Gates Foundation.

The foundation has already led efforts to coordinate research on a microbicide, and helped write a strategy for microbicide development, due to be released on 17 August. Renee Ridzon, a senior programme officer at the foundation, said it is keenly aware of the need to coordinate prevention trials.

"The field needs to think hard about this," she said. "It's definitely on our radar screen." ■ Erika Check