

headaches. Equally to blame are congressional 'earmarks' for pet projects, and cost overruns in many of its science programmes.

The latest example of that is the James Webb Space Telescope, due to launch in 2011. In early May, project managers learned of a \$1-billion overrun that has raised its price to a whopping \$3.5 billion. No obvious solution is in sight, says project scientist John Mather of the Goddard Space Flight Center, based just outside Washington DC. Shrinking the telescope is not acceptable to astronomers. "What comes next we don't know," says Mather.

The new NASA administrator Michael Griffin presented the revised budget to a Senate appropriations panel last week. "NASA cannot afford everything that is on its plate," he says.

Griffin's solution is to cut projects in the early stages of development. He also made it clear that: "In order to service the Hubble Space Telescope and provide for a safe deorbit, NASA will need to defer work on more advanced space telescopes."

He did have some good news — a NASA team thinks it can cut the number of missions required to complete the International Space Station from 28 to 18, and it is still trimming. At half a billion dollars per shuttle flight, such savings are very welcome.

Here, too, fresh evidence paints an intriguing picture. In January, scientists at the Iceland-based company deCODE Genetics found a long inversion — a stretch of DNA that is flipped around backwards that is common in Europeans, but not in Asians and Africans (H. Stefánsson *et al. Nature Genet.* 37, 129–137; 2005). They also found that women who have this inversion bear more children than those who don't a classic sign that the inversion confers an evolutionary advantage.

At the Cold Spring Harbor meeting, scientists presented more evidence that structural differences are important in human evolution. Duc-Quang Nguyen, a postdoctoral fellow in Chris Ponting's laboratory at the University of Oxford, UK, reported an analysis of areas where there are different numbers of copies of DNA stretches. Nguyen found that natural selection is actively working on these genes.

What's more, he found that many of these genes belong to groups that seem to help us interact with our environment. For instance, many work in the immune system, and affect how we fight off disease. These are exactly the sort of genes that could explain our diversity — why some of us get asthma when exposed to air pollution, or why some of us can eat plenty of cheeseburgers without gaining weight.

"We knew these variations existed, but this year we're asking, do they matter?" says Ewan Birney, head of bioinformatics for the European Molecular Biology Laboratory, based in Cambridge, UK. "The answer seems to be yes."

We're still one human family, of course; but our DNA landscapes are a lot more varied than we had thought. Erika Check

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#### **ON THE RECORD**

### "We decided we could alter the discovery date for the opening of the movie."

NEWS

Palaeontologist John Horner explains how he misled the press about his *Tyrannosaurus rex* discovery in order to promote *Jurassic Park III*.

## "Antiretroviral drugs are expanding the AIDS epidemic."

South African maverick Matthias Rath takes out an outrageous fullpage advert in *The New York Times* to accuse drug companies and the United Nations of genocide.

# "Because it's there' was reason enough to conquer Everest, but is it enough for scientific projects?"

Australian health minister Tony Abbott calls for heavier regulation of scientists.

#### SCORECARD

Orbiting tourists Dennis Tito's travel agents open a Tokyo office — so those with a yen for space should head for Japan.

Mars Express Don't expect the next 'Water on Mars' headline just yet. The first of the orbiter's three water-divining radar booms has unfurled, but snags delay the next two.

Fusion project Negotiators discussing where to build the ITER fusion reactor vehemently deny reports of an agreement. That July deadline is looming.

## **NUMBER CRUNCH**

**\$4 million** What USAID spends on bednets, drugs and insecticides to combat malaria.

**\$10.5 million** What USAID spends on research into possible malaria vaccines.

#### \$65.5 million What

USAID spends on other costs, such as technical advice and consultants.

Estimates from Roger Bate, US director of Africa Fighting Malaria, in his Senate testimony (see page 257).