

Virtual observatory finds black holes in previous data

Munich A team of European astronomers has discovered dozens of supermassive black holes — without using a telescope.

Instead, the team used a ‘virtual observatory’ that searches through images previously taken by the Hubble Space Telescope, the Very Large Telescope in Chile and the Chandra X-ray Observatory. The computer program, called the Astrophysical Virtual Observatory, was able to identify 30 very faint, distant black holes by comparing X-ray and visible light images. The results are set to appear in the journal *Astronomy & Astrophysics*.

Only nine of this particular class of black hole have previously been found, according to lead author Paolo Padovani of the European Southern Observatory in Garching, Germany. The new finds may force theorists to reconsider their previous estimates of how many black holes there are in the Galaxy, he says.

Supporters of virtual observatories say they help to boost the powers of existing telescopes, and give astronomers in parts of the world without access to telescopes the chance to conduct cutting-edge research.



Hen hazard: bird viruses can potentially cross the species barrier to affect humans.

Global agencies join forces against animal diseases

Rome After a spate of diseases that have passed from animals to humans, and with the rise in such diseases spreading between countries, the Food and Agriculture Organization of the United Nations and the World Organisation for Animal Health have banded together in a bid to control future outbreaks.

Many researchers agree that the next major pandemic could result from a virus jumping the species barrier between animals and humans. Such viruses — including HIV, severe acute respiratory syndrome (SARS) and some influenza viruses — are often

deadly because humans have not had the chance to develop resistance to them. The last major flu epidemic, in 1918, which killed more than 40 million people worldwide, was probably caused by a bird virus.

On 24 May, the two organizations agreed to combine their resources and establish a global information network. “Rapid distribution of information and an improved coordination between countries is essential to control contagious diseases,” the two agencies said.

US picks fellows for ‘fresh’ science advice

Washington A group of five scientists poised to advise the US Department of State will “bring fresh ideas and new perspectives to America’s foreign policy,” according to Secretary of State Colin Powell.

The researchers were announced as the first Jefferson science fellows on 26 May. The group, which includes an evolutionary biologist, a biochemist and a remote-imaging specialist, will take up their posts in August.

The Jefferson Science Fellows programme allows tenured researchers to work in Washington DC for a year, advising policy-makers on science-related issues. In return for their year’s education in statecraft and diplomacy, the researchers must act as

consultants for the state department for five years after they return to their home institutions.

India installs former lawyer as science minister

New Delhi India's new coalition government has named Harvard-educated lawyer turned politician Kapil Sibal as science minister.

Unlike his predecessor, Murli Manohar Joshi, Sibal will not serve as a full cabinet minister. He will hold the lower rank of minister of state, and will have to seek cabinet approval on policy issues. But science secretary Valangiman Ramamurthi says this should not be seen as a signal that science has been given lower priority by the new prime minister, Manmohan Singh.

Sibal's appointment has been generally welcomed by India's scientific community, despite his lack of science training. He has promised to simplify regulations in biotechnology and to give top priority to stemming India's brain drain.

Stem-cell research in line for cash bonus

London The UK research councils have given stem-cell research a £16.5-million (US\$30-million) boost. The funding will

NASA releases wreckage for shuttle study

Washington NASA has loaned several pieces of the wreckage of the space shuttle Columbia to an independent aerospace researcher.

The move marks something of a departure for NASA. The remnants of two previously destroyed spacecraft — the shuttle Challenger and the burned Apollo 1 capsule — were stored away out of respect for the lost astronauts. But last year, following a recommendation by shuttle launch director Mike Leinbach (right), NASA decided to grant companies access to the Columbia debris for research.

The first recipient, materials scientist Gary Steckel of The Aerospace Corporation in El Segundo, California, will use propellant tanks and one of the shuttle's engines to study how the heat and pressure of atmospheric



re-entry affects the composite materials used in such parts. NASA notified the families of the Columbia astronauts before releasing the debris.

go towards 57 research grants in embryonic, adult and fetal stem-cell research, including the development of new embryonic stem-cell lines.

This should be welcome news to the country's stem-cell bank at the National Institute for Biological Standards and Control in Potter's Bar, which opened last month with just two cell lines. Britain has much more liberal rules regarding stem cells than countries such as the United States, something that many think should lead to a

research advantage. "This is the first direct attempt to exploit our lead in stem-cell research," says Richard Oreffo from the University of Southampton's School of Medicine.

"Without a boost like this, the path of stem-cell research would be long and tortuous," says Ann Logan, a molecular neuroscientist at Birmingham University who has received £400,000 to study how adult stem cells may be used to regenerate brain neurons.