

Japanese researcher hits jackpot for filing patent on blue LEDs

Tokyo A Japanese materials scientist has won a record-breaking ¥20 billion (US\$190 million) award from his former employer, in recognition of his work patenting a process for making blue light-emitting diodes.

Shuji Nakamura, who is now a researcher at the University of California, Santa Barbara, won the compensation battle with the Nichia Corporation in a Tokyo district court last Friday.

The amount is the greatest sum awarded to a researcher in Japan for an invention, smashing the record set the previous day when another court ordered Hitachi to pay an ex-employee ¥163 million for helping to develop DVD technology.

The court ordered the Nichia Corporation to pay Nakamura the sum as “adequate” compensation — the vague description of the price that Japanese law says researchers must receive for their work — for the blockbuster patent that he secured in 1993.

Together the two cases represent a recognition by the Japanese courts of the frustration felt by some industrial workers at not receiving more reward for their efforts. Nakamura says that he was only paid about US\$100 for each patent he filed during his years at Nichia.

Japan industrial researchers were expected to respond enthusiastically to the award. But some companies may threaten to shift their research bases overseas to avoid similar suits in the future.



Light-hearted: Shuji Nakamura celebrates.

Butler resigns post as he awaits sentencing

Washington Thomas Butler, the infectious-disease expert convicted of fraud and breaking germ transport rules, has resigned his professorship at Texas Tech University in Lubbock. The decision may help to reduce Butler's sentence, according to one of his lawyers, Floyd Holder. “If we didn't think that, we wouldn't have done it,” Holder says. In a settlement with Texas Tech, Butler will also pay the university \$300,000.

Butler was convicted on 1 December 2003 of defrauding the university in contracts he held with pharmaceutical companies. He is scheduled to be sentenced in early March for this and other offences, which include

Rotting sperm whale spills its guts

Tokyo An otherwise ordinary day in a busy Taiwanese street was interrupted last week by 60 tonnes of exploding sperm whale.

The dead whale was being delivered on the back of a truck to the laboratory of comparative anatomist Jiann-Pyng Wang at National Cheng Kung University in the western coastal city of Tainan for an autopsy. It had washed up on a nearby beach on 25 January.

The carcass exploded after gas from decomposition built up inside. Luckily for Wang, only some of the internal organs, including the intestines, fell into the street. His focus for the post mortem, the heart and lungs, were still intact.



shipping samples of plague bacterium without proper labelling.

On 20 January, the Texas medical board voted to suspend Butler's medical licence. If he is sent to prison, his medical licence will be permanently revoked. He faces potential fines and up to five years in jail.

India looks to restore sight with stem cells

Hyderabad A new clinical centre in India will use stem-cell therapy to cure blindness in people with damage to the outer surface of their eyes. President A. P. J. Abdul Kalam inaugurated the centre last week at the L. V. Prasad Eye Institute in Hyderabad.

Corneal disease and surface damage to the eye are major causes of blindness around the world. During the past two years, researchers at the institute have treated more than 180 patients by implanting cells derived from cultured adult stem cells, with 70% success. They describe the work as “the first successful large-scale application of adult stem-cell technology anywhere in the world”.

The researchers say that their technique allows the reconstruction of the entire outer surface of the eye in one go — an improvement on methods that repair only the cornea.

The project was the first to be funded under the Indian government's stem-cell initiative, launched in 2001.

Pasteur Institute set to open doors in China

Paris Emerging infectious diseases such as severe acute respiratory syndrome (SARS) and bird flu will be targeted by a new Pasteur Institute centre in Shanghai. The vice-president of the Chinese Academy of Sciences, Chen Zhu, and the Pasteur's director-general, Philippe Kourilsky, signed an agreement last week in Paris to set up a branch of the prestigious French research centre, during a state visit by the Chinese President Hu Jintao.

The centre, to be funded by the Chinese government and the Pasteur Institute, will house up to 250 scientists and technicians. They will carry out teaching and research in virology, vaccines and epidemiology, with an emphasis on diseases that jump the animal-to-human species barrier. Unusually for China, the centre will have the legal status of a not-for-profit company, and will be run by independent executive and science boards. Plans for the centre are expected to be finalized in the summer.

The Shanghai centre — the first Pasteur Institute on mainland China — will add to the agency's existing network of 23 centres in 17 countries on five continents, most of them in tropical countries where the diseases under study are endemic.

Elusive new elements make their debuts

London The periodic table has gained two new members, according to Russian and American researchers.

Fleeting glimpses were caught of elements 113 and 115 last summer at the Joint Institute for Nuclear Research in Dubna, Russia, researchers report in a paper due for publication later this month (Y. T. Oganessian *et al. Physics Reviews C*, in the press).

They fired a beam of calcium atoms at a target made of the heavy element americium. Analysis of the particles produced in the collision revealed that the new elements sprang into existence for a fraction of a second before decaying into lighter, more stable nuclei. The new elements had already been given the temporary names ununtrium and ununpentium, respectively.

Sigurd Hofmann, a nuclear physicist at the Institute for Heavy Ion Research in Darmstadt, Germany, has seen the data and says the findings look convincing. Other groups will now try to replicate the work, although Hofmann cautions that this might be difficult, as the americium target is highly radioactive and difficult to prepare.