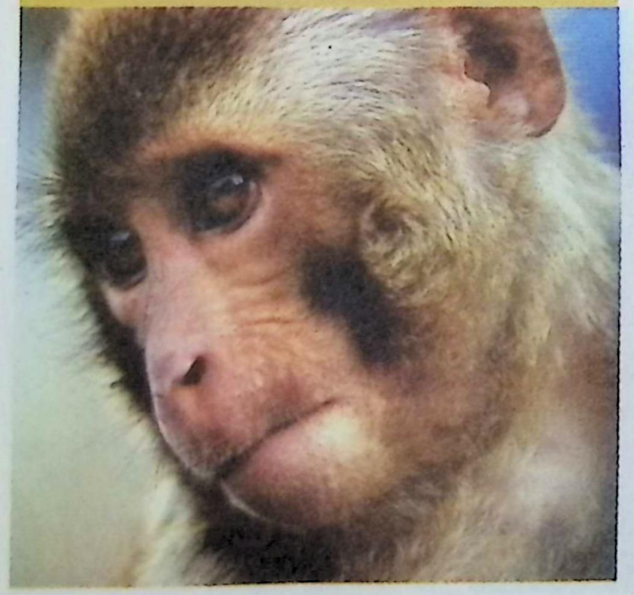


Biggest black hole in the cosmos discovered

The most massive known black hole in the universe has been discovered, weighing in with the mass of 18 billion Suns. Observing the orbit of a smaller black hole around this monster has allowed astronomers to test Einstein's theory of general relativity with stronger gravitational fields than ever before. The black hole is about six times as massive as the previous record holder and in fact weighs as much as a small galaxy. It lurks 3.5 billion light years away, and forms the heart of a quasar called OJ287.

Macaque monkeys may 'pay' for sex

The "oldest profession" seemingly has pre-human evolutionary roots. When the opportunity arises, male macaque monkeys groom females to 'pay' for sex, say scientists in Singapore. Analysing the behaviour of a 50-strong group of long-tailed macaques, they found there was an increase in sexual activity after bouts of male-to-female grooming. On average, females had sex 1.5 times per hour, but immediately after being groomed by a male partner, this rate jumped to 3.5 times per hour. After grooming, the female was also less likely to offer herself to males other than her grooming partner.





Scientists make dead hearts beat again

Hearts from dead rats have been used as a 'scaffold' to engineer a bio-artificial heart. The discovery may one day be used to repair heart damage or even generate new ones for transplant. Using a process called decellularisation to wash away existing cells from the hearts, scientists left the basic collagen structure intact. They injected this gelatine-like scaffold with heart cells from newborn rats and left them to grow. Four days later, the hearts started to contract. The researchers used a pacemaker to coordinate the contractions and filled the hearts with fluids. Eight days later, the hearts started to pump.