



## Sick Pictures

A neuroscientist might describe a nightmare differently, but this 1810 image (left) by the English engraver Jean Pierre Simon certainly captures the terror. It's one of thousands of medically themed photos and art housed at Wellcome Images, a

new gallery from the British biomedical charity the Wellcome Trust.

The site's contemporary collection is the place to search if you want, say, a spectacular photo of dividing cells caught at the moment of parting or an electron micrograph of influenza viruses barging into tracheal cells. To trace changes in medical knowledge and practice, browse the historical collection, whose holdings include rarities such as 15th century Chinese anatomical drawings and a 1920s Soviet propaganda poster on the dangers of typhus. If your intentions are pure (that is, noncommercial), you can download the images free. >> [images.wellcome.ac.uk](http://images.wellcome.ac.uk)

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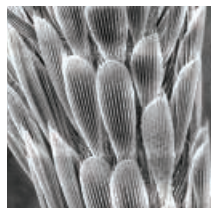
## Multifaceted Menace

Mosquitoes can walk on water as well as any waterbug, or stick to a wall like Spiderman. Now Chinese bioengineers are figuring out what makes them such versatile pests.

A team led by C. W. Wu at the Dalian University of Technology in China mounted a mosquito's leg on a needle and pushed it down onto a tub of water on a digital balance. By varying the angle, they found that a single leg could hold 23 times a mosquito's weight before becoming submerged, they report in July's *Physical Review Letters*.

Scanning electron microscope images revealed that the insect's legs are equipped with

tiny scales, each with up to a dozen longitudinal ridges connected by fine transverse ribs. The scientists speculated that air trapped between



Scales on mosquito leg.

the ribs may form "nanocushions" that contribute to buoyancy, but their experiments also indicated the importance of the angle of the leg in not breaking through the surface. As the authors note, mosquitoes are equally at home on dry land. It turns out that their feet are equipped with tiny hooks and covered in adhesive hairs similar to those on a fly.

Mathematician David Hu of New York University notes that understanding water-repellent nanostructures will be useful for anyone who wants to make an all-terrain robotic insect. "If it's ever going to fly in the rain, water repellency is going to be important."

## Armchair Galaxy-Spotting

If you can tell a star from a galaxy, astronomers at Portsmouth and Oxford universities in the United Kingdom and Johns Hopkins University in the United States would like you and your computer to help classify about a million images from the robotic Sloan Digital Sky Survey telescope at Apache Point Observatory in Sunspot, New Mexico.

Volunteers are invited to go to [www.galaxyzoo.org](http://www.galaxyzoo.org) to see pictures of galaxies, "most of which have never been viewed by human eyes before," according to a statement on the Web site. Participants will categorize each image as spiral, elliptical, star/don't know, or mergers. The spiral galaxies are then subdivided into clockwise, anticlockwise, and edge-on.

"The human brain is actually better than a computer at pattern recognition tasks like this," says Oxford astrophysicist Kevin Schawinski. Astrophysicist Bob Nichol of Portsmouth adds that getting the galaxies classified is "as fundamental as knowing if a human is male or female."



## VERY OLD WINE

Archaeologists said last week that they had discovered the oldest known winery in France, at a 2000-year-old Roman villa near Béziers in the southern region of Languedoc.

Stephane Mauné, with the French research agency CNRS at Lattes, says the winery was clearly a big business. A 12-by-50-meter building contained 150 huge terra cotta fermentation vessels called "dolia," many smaller amphorae for aging wine, and stone support structures for winepresses. "It was quite a sophisticated enterprise, with running water for cleaning the [jugs]," says Mauné. Dating the establishment was easy thanks to a coin from about 20 C.E. found in the area.

Markings on the wine vessels indicate that a merchant from Puteoli (now Pozzuoli), near Naples, owned the winery. Mauné says workers have found the names of a dozen ceramists among the winery's estimated 80 employees.

Archeologist Jean-Pierre Brun, director of the Jean Bérard Center in Naples, Italy, says the site reflects the enormous growth of commercial wine culture and export during the first and second century C.E. This area "was the 'Far West' for the Romans," he says, noting that they were lured to Gaul by cheaper production costs and land.