RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Supreme Court Clarifies Junk Science Stance

Legal experts are cheering a Supreme Court ruling that affirms the power of trial judges to filter out "junk science" and irrelevant research before it reaches the courtroom. The 15 December opinion, in *General Electric Co. (GE)* v. *Joiner*, rebuffs attempts by some lawyers to narrow the scope of a 1993 decision stipulating that judges are "gatekeepers" who may decide what scientific evidence should be admitted in court. That decision, *Daubert* v. *Merrell Dow*, freed judges from having to determine whether potential evidence is "generally accepted" by the scientific community.

Daubert has caused considerable confusion. Although observers had expected it to favor plaintiffs in product liability suits by making more evidence admissible, judges have actually been rejecting more scientific testimony than before (*Science*, 4 April, p. 23).

One such case was *GE* v. *Joiner*, in which a Georgia electrician charged that toxic chemicals in transformers "promoted" his lung cancer. A federal appellate court ruled that a trial court too readily excluded testimony on animal cancer and epidemiology studies. The Supreme Court struck down the decision, agreeing that the studies in question weren't relevant to Joiner's cancer. The court also rejected the argument that *Daubert* limits judges to assessing methodology, not conclusions, ruling that the two "are not entirely distinct."

The court's decision is "a victory for good science," because it makes it easier for judges to keep irrelevant research out of the courtroom, argues Washington, D.C., attorney Dick Meserve, former co-chair of the National Conference of Lawyers and Scientists.

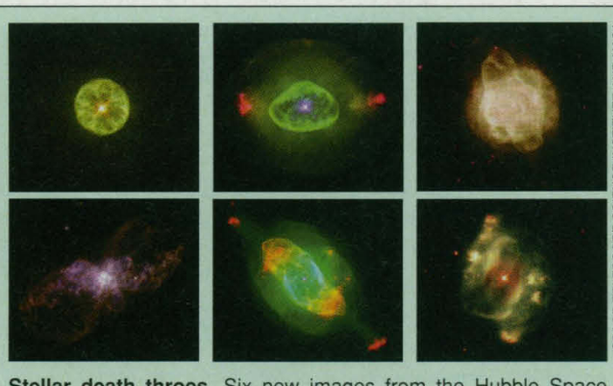
In a concurring opinion, Justice Stephen G. Breyer made a pitch for using more scientific panels to help judges sort through evidence. Groups at Duke and at the AAAS (publisher of *Science*) are now seeking funding to supply courts with impartial experts.

Turkmenians Oust Soviet-Style Academy

The Central Asian republic of Turkmenistan last month became the first of the former Soviet nations to abolish its academy of sciences. The government plans to order most of the basic researchers at the Turkmenistan Academy of Sciences (TAS) to start addressing practical problems that could benefit the struggling new nation.

Russia and other former Soviet countries have talked a good game about reforming their Soviet-era academies—collections of centrally controlled and funded research institutes that are isolated from universities and rarely held accountable for the quality of their research. But few have taken any decisive steps. In approving the abolishment of the academy on 15 December, the country's president, Saparmurat Niyazov, cited the "lack of any practical scientific results" from TAS, according to the Russian press agency Interfax. The nation's scientists instead will be devoting their energies to matters such as energy, mining, oil extraction, and drinking water.

Many research projects at the 15 TAS institutes, staffed by roughly 3000 scientists, will be kept alive. TAS's Desert Research Institute, which has extensive international collaborations on the dwindling Aral Sea and other topics, will now become the jewel of the environmental ministry. Other scientists fit for applied work, including most biologists and chemists, will report to ministries and agencies in their specialty, says Chary Annaberdiev, an official at the Turkmenistan Embassy in Washington, D.C. Those in more abstract fields such as mathematics and physics will receive university jobs. But an as-yet-undetermined number of scientists will be fired. "Of course there will be unemployment," Annaberdiev says, "but this is the right decision."



SPACE TELESCOPE SCIENCE INSTITUTE AND NASA

Stellar death throes. Six new images from the Hubble Space Telescope reveal a remarkable range of shapes and compositions of planetary nebulae, the eerie cloak surrounding dying stars. The nebulae form when ordinary stars like our sun use up their fuel and shed their outer layers, their cores left as smoldering white dwarfs. Ultraviolet rays ionize the expanding shells of gas, creating dazzling and sometimes symmetrical patterns. The planetary nebulae are "fantastic laboratories" for research in atomic physics, says Cornell astronomer Yervant Terzian, allowing scientists to explore how stars die and repopulate the galaxy with the raw stuff of new stars. Some 5 billion years from now, the sun is expected to belch out its own planetary nebula after engulfing and incinerating Earth, Terzian notes.

Space Telescope Taps Beckwith

Steven Beckwith, currently director of the Max Planck Institute for Astronomy (MPIA) in Heidelberg, Germany, is first in line to replace Robert Williams as director of the Space Telescope Science Institute (STScI) in Baltimore. STScI operates the Hubble Space Telescope for NASA. Beckwith says the job offer, which he received on 19 December, is "exciting and challenging and a tremendous honor." He says he will make a decision this month when MPIA reopens after the holidays.

Thumbs Down to Live Science

A science exhibit that put working scientists on public display has closed its doors. Baltimore's new Columbus Center combines a marine science museum with a major research lab and educational facilities for local school groups. But the center's money-losing Hall of Exploration, featuring high-tech exhibits and researchers from the University of Maryland's Center of Marine Biotechnology (COMB) working behind plate-glass windows, closed on 15 December, a victim of poor attendance, after only 7 months.

The hall's exhibits, which included a walk-through cell and multimedia shark display, generally got good reviews, as did lab demonstrations that brought COMB researchers onto the exhibit floor (*Science*, 28 March, p. 1874). But while center officials had hoped to attract 280,000 visitors in 1997, the final total was closer to 70,000. Spokeswoman Paula Dozier attributes the problem to inadequate PR and competition from popular Baltimore attractions such as the nearby aquarium.

Research and education at the Columbus Center will continue, says Rita Colwell, a center founder and president of the University of Maryland's Biotechnology Institute. Meanwhile, the board will consider ways to use the hall in the education program and eventually reopen it to the public.