Animals enjoy a good laugh, too

A few weeks ago, Newscripts ran an item reviewing the benefits to the human vascular system of laughter (C&EN, May 9, page 48). But laughter and joy are not uniquely human traits.

In a recent article in Science (2005, 308, 62), neuroscientist Jaak Panksepp of Ohio's Bowling Green State University reports that "if rats are tickled in a playful way, they readily emit 50-kHz chirps." Those that he and his colleagues tickled "became socially bonded to us and were rapidly conditioned to seek tickles." Not unlike humans who mostly prefer jovial companions, Panksepp's rats "preferred spending time with other animals that chirped a lot."

Reviewing his findings and those of other scientists, Panksepp says that rodents do not have a well-developed cognitive sense of humor, but if they have a sense of humor at all, "it is likely to be heavily laced with slapstick." Young rats "have a marvelous sense of fun."

Scientists have already bred rats with a funny bone and a tendency to horse around, leading to the hope that investigators may one day discover the genes for joy. "Perhaps," Panksepp notes, "we will even stumble on new molecules to alleviate depression as well as some excessive exuberance disorders."

Birds of a feather

Some parrots can do a pretty good imitation of human laughter, and their excessively exuberant colors can be a real delight. An Arizona State University (ASU) researcher and his accomplice have uncovered a fifth chemical responsible for the visually exciting red plumage found in parrot feathers.

ASU's Kevin J. McGraw and parrot fancier Mary Nogare used liquid chromatography to analyze the pigments present in the red feathers of 44 parrot species. The polyenal lipochrome they discovered, and four others already known, produce unique pigments found nowhere else in the world.

McGraw speculates that the pigments play a valuable role in maintaining the health of parrots. Other studies suggest the pigments act as antioxidants.
Waste not

The answer to the Rosamond Gifford Zoo's electricity and heating needs may be right under its nose, according to an Associated Press report of May 3.

The zoo, located in Syracuse, N.Y., is conducting a feasibility study on using animal waste to reduce an annual energy bill of $400,000. Depending on the process, the zoo might use the waste to produce methane or hydrogen to power either a generator or a fuel cell.

It now spends $10,000 a year on animal waste disposal, including 1,000 lb a day of ordure alone from its Asian elephants. Add the refuse from other resident animals, and the zoo has a weighty, pungent, and expensive conundrum--and just maybe the power to solve it.

Kids' molecularium

The Children’s Museum of Science & Technology in Troy, N.Y., is showing something new in its big, domed planetarium.

To explain molecules to kindergartners through third-graders, the planetarium is now screening a 20-minute animated cartoon show. Only the subject isn’t outer space; it's atomic space, according to a recent Associated Press story. Atomic characters form molecules by bonding cheek to cheek and singing, "We make you!" And carbon is a Hispanic atom who pronounces his name like Ramón.

Geeks outgeeked

Pulling a fast one on their learned elders, three students at Massachusetts Institute of Technology submitted two computer-generated works of gibberish masquerading as academic papers--and had one accepted for a scientific conference. According to Reuters, the World Multi-Conference on Systemics, Cybernetics & Informatics accepted one of the inarticulate academic tomes for the group's meeting planned for Orlando, Fla., July 10-13.

This week's column was written by Marc Reisch. Please send comments and suggestions to newscripts@acs.org.