Pigs Get New Teeth

Suppose a hard-hit softball were to knock out your tooth. What if you could simply regrow that "pearly white"? Researchers at the Forsyth Institute in Boston, Massachusetts, have done just this with pig teeth.

Lead scientist Pamela Yelick explains that her team has grown pig teeth in the lab. First the researchers took dental stem cells (cells that grow into teeth) from the "baby teeth" of 6-month-old piglets headed for the market. They placed these cells onto a special type of sponge. Then they put the cell-filled sponges into rats' intestines. Inside the intestines, the piggy dental stem cells were able to get the blood needed to grow into teeth. Thirty weeks later, small pig molars were growing inside the rats' intestines.

Yelick predicts that within 15 years people will be using sponges filled with their own dental stem cells to regrow lost chompers. A made to order sponge will fit right into a person's jaw to grow a tooth of any size and shape. Eventually the sponge will decay, leaving a sparkling new tooth in its place. Now that's a mouthful!

Ring Around the Milky Way

Imagine having the task of mapping the whole Milky Way, the galaxy (cluster of stars, dust, and gas) in which we live! That's what researchers were up to when they made an out-of-this-world discovery: A hula-hoop of stars may be circling the Milky Way.

For 12 years, astronomer (space scientist) Heidi Newberg and a team of researchers with the Sloan Digital Sky Survey in New Mexico have used a 2 1/2 meter (8 foot)-wide telescope to map each star in the Milky Way. They thought our spiral-shaped galaxy slowly petered out into empty space. So the astronomers were surprised to find a cluster of half a billion stars circling us.

Newberg thinks the ring was created when a small galaxy got too close to ours. The Milky Way's strong gravitational pull sucked in the smaller galaxy. The little galaxy's stars spun to the edge of the Milky Way where they've been trapped in a ring-like circle ever since. But don't pull out your binoculars just yet. You'd have to be outside our galaxy to see the whole ring at once.

Visit SuperScience online for lots more news and activities. You'll find more pages of SuperScience, including a self-scoring quiz and science experiments. And for more information on topics covered in this issue, follow the links to related Web sites.