More on Silicone Implants

In the third such report in the United Kingdom in 7 years, a scientific panel appointed by the British government has concluded that there is no evidence that silicone-gel breast implants cause disease.

The panel, headed by University of Glasgow rheumatologist Roger D. Sturrock, was formed in response to pressure from women's groups. One hypothesis they examined in detail was that leaked silicone could break down to silica, which might cause autoimmune diseases such as arthritis. But examination of tissue slides supplied by pathologist Radford Shanklin of the University of Tennessee, Memphis, showed only silicone. The panel concluded that the implants "are not associated with any greater health risk than other surgical implants."

Patient groups are still unsatisfied, claiming that the panel should have held public meetings. Laurence Gerlis, a physician advising the Silicone Support Group UK, says there is still no good explanation for the fact that a small number of implant recipients have clearly suffered adverse reactions.

Meanwhile in the United States, which has had a moratorium on silicone implants since 1992, two more reports are forthcoming. One panel, headed by epidemiologist Barbara Hulka of the University of North Carolina, Chapel Hill, is expected to report in September on a court-ordered investigation of alleged effects on the immune system. Finally, a panel of the Institute of Medicine is preparing what staff director Roger Herdman hopes will be the "definitive" word, due in July 1999.

P. CRIMES

Dickinsonid

Modeling Fossils in Jell-O

Scientists have long puzzled over how to classify Ediacarans, little floppy sea creatures that lived about 600 million years ago, because the only evidence they left are impressions in sandstone.

Now two paleontologists, Kenneth Schopf of Harvard and Tomasz Baumiller of the University of Michigan, Ann Arbor, have done a novel modeling experiment that they believe will help with Ediacaran taxonomy by showing that at least one type, the flat, oval-shaped *Dickinsonia*, may not have lived on the seabed surface, as is generally supposed.

Schopf and Baumiller modeled the 13-cm-long creature in various densities of Jell-O–like Polygel, then subjected it to flowing water at different speeds. A dickinsonid as dense as a soft-bodied worm is unstable at currents fast enough to deposit the sands in which they are often preserved, the scientists report in the summer issue of *Lethaia*. To be stable, it would have to be as dense as a flounder or live buried in the seabed. Either option would rule out *Dickinsonia*'s "conventional construction as a free-living, flattened worm," says Schopf.

Soren Jensen of Cambridge University says modeling Ediacarans in gel has "great potential"—but he still favors a scenario that places *Dickinsonia* in quiet locales where sticky microbial mats helped them adhere to the seabed.

Self-Shearing Sheep

First man tamed fire. Then he invented agriculture. Now, after 5000 years of shearing sheep by hand, he's created Bioclip, which leaves the job to the sheep.

Bioclip is based on a common protein called epidermal growth factor (EGF). Discovered 2 decades ago by biochemist Stanley Cohen of Vanderbilt University in Nashville, Tennessee, EGF stimulates the growth of various types of tissues in animals and causes one type of sheep to molt periodically. CSIRO, the Australian research agency, has spent 20 years looking into how to harness EGF in the sheep industry and has now incorporated it into a biological substitute for shears. At shearing time, says Pat Wilson of CSIRO's animal production facility, a sheep gets an injection of Bioclip and is then fitted with a net that catches the fleece as it falls off, a process that takes about a week.

Wilson and the company, Bioclip Pty Ltd. in New South Wales, say they will launch the product commercially in October and anticipate a big demand: The country's $3-billion-a-year wool industry produces 70% of the world's clothing wool. Soon barns Down Under may no longer ring with the sounds of spring shearing—instead, there will be 150 million merinos milling around in hairnets.

CSIRO

Smooth shave for bioclipped sheep

Fingerprinting the Potato

How can you tell if an "Idaho" baking potato was really grown in that spudly state? University of Idaho chemist Kim Anderson has developed a way to identify a potato through telltale trace elements.

The Idaho potato is regarded as superior among tubers. So when the Idaho Potato Commission became concerned a few years ago that impostors were eating into the market, it asked Anderson for help.

Organic chemicals make for unreliable fingerprints because they degrade over time, Anderson reported last month, at an American Chemical Society meeting in Pasco, Washington. So instead she dissolved pieces of potato in acid and looked for copper, iron, zinc, nickel, cadmium, vanadium, and a dozen other elements in the residues. She then compared the residues from 600 Idaho-grown potatoes to those in 600 potatoes from five states and two Canadian provinces. From this she developed a statistical model that can spot the real thing with 98% accuracy.

Anderson's research will be "a valuable tool," says Potato Commission attorney Pat Kole, for doing spot checks and investigating complaints.