

Cells Teaming Up

Should we genetically engineer pigs to be more useful to humans?

Human organs for use in transplants are in short supply. Ill patients can wait many years until someone matches their particular chemistry. For more than half a century, we've been repairing human hearts with valves from pig hearts. Unlike human organ donors who often die to give the gift of life to a patient in need, pigs are raised specifically to harvest these valves for medical use.

Human organs are rejected when the proteins on the surfaces of the cells of the donor and the patient receiving the organ don't match. Pigs have been genetically engineered so that the valves we collect from them won't be rejected as often. Some scientists are even trying to find ways to tailor organs to each patient's immune system, using stem cells.

Researchers have found that pigs are as smart as chimpanzees and as social as dogs... and even cleaner than cats and dogs! Some people keep them as pets. Pigs may carry DNA that could harm humans.

