The Age of Cloning
HOW DOLLY WAS CREATED

WE WILL SEE EWE AGAIN

1. Cells taken from the udder of a Finn Dorset ewe are placed in a culture with very low concentrations of nutrients. Thus starved, the cells stop dividing and switch off their active genes.

2. Meanwhile an unfertilized egg cell is taken from a Scottish Blackface ewe. The nucleus (with its DNA) is sucked out, leaving an empty egg cell containing all the cellular machinery necessary to produce an embryo.

3. The two cells are placed next to each other, and an electric pulse causes them to fuse together like soap bubbles. A second pulse mimics the burst of energy at natural fertilization, jump-starting cell division.

4. About six days later, the resulting embryo is implanted in the uterus of another Blackface ewe.

5. After a gestation period, the pregnant Blackface ewe gives birth to a baby Finn Dorset lamb, named Dolly, that is genetically identical to the original donor.