

## Risk Taking Is in His Genes

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KYOTO, Japan — Inspiration can appear in unexpected places. Dr. Shinya Yamanaka found it while looking through a microscope at a friend's fertility clinic.

Dr. Yamanaka was an assistant professor of pharmacology doing research involving embryonic stem cells when he made the social call to the clinic about eight years ago. At the friend's invitation, he looked down the microscope at one of the human embryos stored at the clinic. The glimpse changed his scientific career.

“When I saw the embryo, I suddenly realized there was such a small difference between it and my daughters,” said Dr. Yamanaka, 45, a father of two and now a professor at the Institute for Integrated Cell-Material Sciences at Kyoto University. “I thought, we can't keep destroying embryos for our research. There must be another way.”

After years of searching, and at times almost giving up in despair, Dr. Yamanaka may have found that alternative. Last month, his was one of two groups of researchers that independently announced they had successfully turned adult skin cells into the equivalent of human embryonic stem cells without using an actual embryo. The other group was led by James A. Thomson at the University of