

# Human cloning company faces stiff competition, legal battles

SAN FRANCISCO (AP) — A testament to the aggressiveness of chief executive Michael West, Advanced Cell Technology garnered a whirlwind of publicity with its claim to be the first to clone a human embryo.

The accomplishment is preliminary, though, and by no means guarantees success in a tough business climate. Competitors claim patents and exclusive commercial rights to cloning and the production of human embryonic stem cells — the ultimate goal of Advanced Cell.

Political opposition is formidable as well. A House bill criminalizing human cloning awaits debate in the Senate and President George W. Bush on Monday called Advanced Cell's work "bad public policy and morally wrong."

In an interview Monday, West defended his decision to announce the tentative breakthrough. "We didn't have any ulterior motives. We simply wanted to advance science and medicine," West said. "I have a sense of urgency, because people are dying."

Scientists hope they can coax human embryonic stem cells to grow into replacement cells to heal the sick and ailing.

But some supporters of stem cell research said West's announcement Sunday in the relatively unknown online journal, e-biomed: The Journal of Regenerative Medicine, may set back progress since it lacked sufficient scientific data.

It was not clear whether the embryos Advanced Cell cloned would be capable of growing into a human being. The embryos died even before any stem cells were produced.

Glenn McGee, a University of Pennsylvania bioethicist, resigned from Advanced Cell Technology's ethics advisory board last year because he said West wasn't being public enough with his research.

Now, McGee says West made the opposite mistake — too much publicity without any substance.

He suggested West made the announcement prematurely in part to stake a claim to human cloning as its exclusive intellectual property — a charge West denied.

The U.S. Patent Office has rejected previous requests for patents on human cloning. Nonetheless, Advanced Cell did receive a patent for technology involving non-human mammals in May.

West claims that patent also gives the company exclusive rights to profit from cloning human embryos to obtain "inner cell mass cells," precursors to embryonic stem cells that are formed in the earliest days of pregnancy.

If the tiny company survives the political and scientific challenges ahead, it hopes to invoke this patent as it battles other intellectual property claims.

The University of Wisconsin now holds the patent for isolating human embryonic stem cells, and any U.S. company wanting to profit from the science must first get the school's permission.

Geron Corp. funded most of Wisconsin's stem cell research and owns significant and exclusive commercial rights to the work. The exact scope of those rights, however, are the subject of a pending federal lawsuit the university filed against Geron in August.

### A recipe for controversy

Recent efforts to clone a human embryo were meant to develop genetically compatible replacement cells for patients, not human clones, says the company that conducted the experiments.

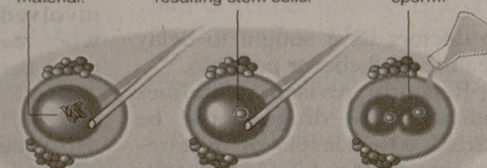
#### Cell swap

One method used by the researchers — nuclear transfer — has been successful in cloning sheep and other animals.

A needle is used to puncture the wall of a mature egg and remove its genetic material.

A cumulus cell, a remnant from the ovary, is inserted into the emptied egg. This cell is meant to provide genetic material for the developing egg — and the resulting stem cells.

Added chemicals and other growth factors fool the egg into dividing, as if it had been fertilized by a sperm.



Cell division should have resulted in a blastocyst, a hollow ball of about 100 cells containing stem cells. But the few experimental eggs that began dividing stopped at four or six cells.

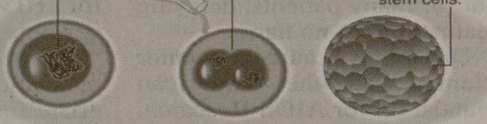
#### Egg reprogramming

The other method — parthenogenesis — differs from classic cloning.

Normally, a mature egg and sperm each supply half of an embryo's 46 chromosomes. But before maturity, the egg possesses a full set of genes.

Using eggs donated during this early stage, researchers activate them with chemicals that change their concentration of charged ions.

After five days of cell division, some of the eggs had developed into blastocysts. But inside, none of them held the cells that yield stem cells.



SOURCE: Scientific American

AP

inspirations POST OAK MALL 979-764-4444

2 for \$45

(excludes embroidered designs, while supplies last)

**THIS FRIDAY, SATURDAY, & SUNDAY ONLY!**

SEE YOU AT BUYBACK! REMEMBER TO RESERVE NOW!

**LOUPOT'S BOOKSTORES**

"A Tradition of Friendly Service Since 1932"

**WOLF PEN PLAZA**  
1907 TEXAS AVE. S  
COLLEGE STATION, TX 77840  
(979) 693-0838

**NORTHGATE**  
335 UNIVERSITY DR.  
COLLEGE STATION, TX 77840  
(979) 846-6312

**SOUTHGATE**  
308 GEORGE BUSH DR.  
COLLEGE STATION, TX 77840  
(979) 693-2278

**Loupot's Moved**  
FROM REDMOND TERRACE TO WOLF PEN PLAZA  
NEXT TO HOBBY LOBBY AND SHOE CARNIVAL.  
COME VISIT THE NEW STORE — GREAT PARKING!!

www.loupots.com

**LOUPOT'S BOOKSTORES**

"A Tradition of Friendly Service Since 1932"

**20% OFF**  
T-SHIRTS; SPORTSWEAR; GLASSWARE

335 UNIVERSITY DR.  
308 GEORGE BUSH DR  
1907 TEXAS AVE. SOUTH

VOID 12/31/01  
www.loupots.com

**LOUPOT'S BOOKSTORES**

"A Tradition of Friendly Service Since 1932"

**10% MORE CASH FOR USED BOOKS**

335 UNIVERSITY DR.  
308 GEORGE BUSH  
1907 TEXAS AVE. SOUTH

VOID 12/31/01  
www.loupots.com

Located Near ATM!

**BLUE BAKER**

It Takes Great Bread To Make A Great Sandwich!

**STUDY BREAK SPECIAL!**  
Bottomless Cup of COFFEE + Fresh Baked COOKIE = \$1.50!

Plenty of table space! Now open 'till 11pm!  
One coupon per customer. Not valid with any other offer.  
Expires 12/15/01.

Mon-Sat: 7am-11pm, Sunday: Closed  
201 Dominik Drive, (979) 696-5055

**AGGIES! CHARGE!!**

STERLING SILVER  
Laceings...\$45  
Hot Pink, Vest Pins  
& Ties...\$22.50

**SHOW YOUR SUPPORT!!**  
The Color 12th may have just shown the change and Reveille leads the way!

Original hand sewn design by  
L. J. Hill, Texas Mason, Founder  
Now available in 14K. Request Price.

Toll Free Ordering  
Amex, MC, Visa, Discover

1-877-809-9378  
For additional Texas designs see  
WWW.TexasReflections.com

• Annual Exams  
• Birth Control  
• Treatment of Infections  
• Pregnancy Tests  
• Breast Exams

**Affordable, Confidential, Convenient**

Call **1-800-230-PLAN**  
and be connected to the nearest  
Planned Parenthood  
www.pphouston.org

**WE NOW OFFER**

**BALLOON THERMABLATION**  
A simple out-patient treatment for abnormal or heavy bleeding

**TVT SLING OPERATION**  
Out patient procedure for your urinary bladder control

**MAHENDRA O. THAKRAR, M.D., F.A.C.O.G.**

Gynecologist dedicated to complete care of women in the Brazos Valley for 25 years.

1602 Rock Prairie Road, Suite 300  
College Station  
764-6868

*This holiday season...*

**Give the Gift of Sight!**

**\$0 down 0% interest\***

The holidays — what a wonderful time to be free of glasses and contacts. And with our special financing offer, there's no better gift to give. Call Clear Choice Laser Eye Centers today and let us help you wrap up your shopping with our special Holiday Gift Package.

**Risk-Free Consultation**  
Relax...your first visit and LASIK evaluation are FREE!

✓ Experienced LASIK specialists  
✓ FDA-approved scanning lasers  
✓ Includes all visits for one full year  
✓ In-office procedure  
✓ Free touch-ups (if needed)  
✓ Low monthly payments

**CLEAR CHOICE Laser Eye Centers**

**832-249-6500**

1715 Red Oak Drive · Suite 119 · Houston  
Near Houston Northwest Medical Center

\*Offer expires December 31, 2001. Fee based on actual prescription. Call for details.