

State and Local

E.L. Miller Lecture Series

Prof says embryo transplants commonplace

By Sondra Pickard
Senior Staff Writer

In 1932, scientists at Texas A&M implanted the embryo of a goat into the reproductive tract of another, which resulted in the birth of a healthy kid. The experiment was the second successful mammalian egg transfer ever recorded, but since then, transferring mammalian embryos has become commonplace at A&M and around the world.

Dr. Duane Kraemer, A&M professor of veterinary physiology and pharmacology, said the first successful egg transfer was performed in 1891 at Cambridge University with rabbits.

In 1951, he said, the science was

first applied to cattle, which are now the most common animals used. It took 20 years, however, before embryonic transfers could be applied commercially.

Kraemer spoke on Wednesday as part of the E. L. Miller Lecture Series titled "Genetic Engineering: Improving or Interfering?" The program was sponsored by the Memorial Student Center's Political Forum committee.

Kraemer has worked on various aspects of embryo transfers since 1959, and in 1971, he performed the first purebred calves to be produced by a commercial embryo transfer company.

Kraemer defined embryo trans-

fers as "the movement of pre-implantation embryos from the reproductive tract of the genetic mother, or donor, to the reproductive tract of the surrogate mother, or recipient."

When transferring embryos, he said, the objective is to increase the number of offspring from genetically valuable females.

Some of the benefits of transferring embryos Kraemer mentioned include:

- The production of improved livestock strains;
- The production of animal models for research;
- The treatment of human infertility; and

- The preservation of endangered species.

To begin the process, Kraemer said, eggs are fertilized by artificial insemination. The embryos are then transferred — each one to a different recipient.

Kraemer said the resulting offspring are not clones, but rather full brothers and sisters.

To successfully complete an embryo transfer, Kraemer said the reproductive cycles of both the donor and recipients must be synchronized, thereby maximizing the possibility of conception.

"Basically," Kraemer said, "you need a group of cows that are all in heat at the same time."

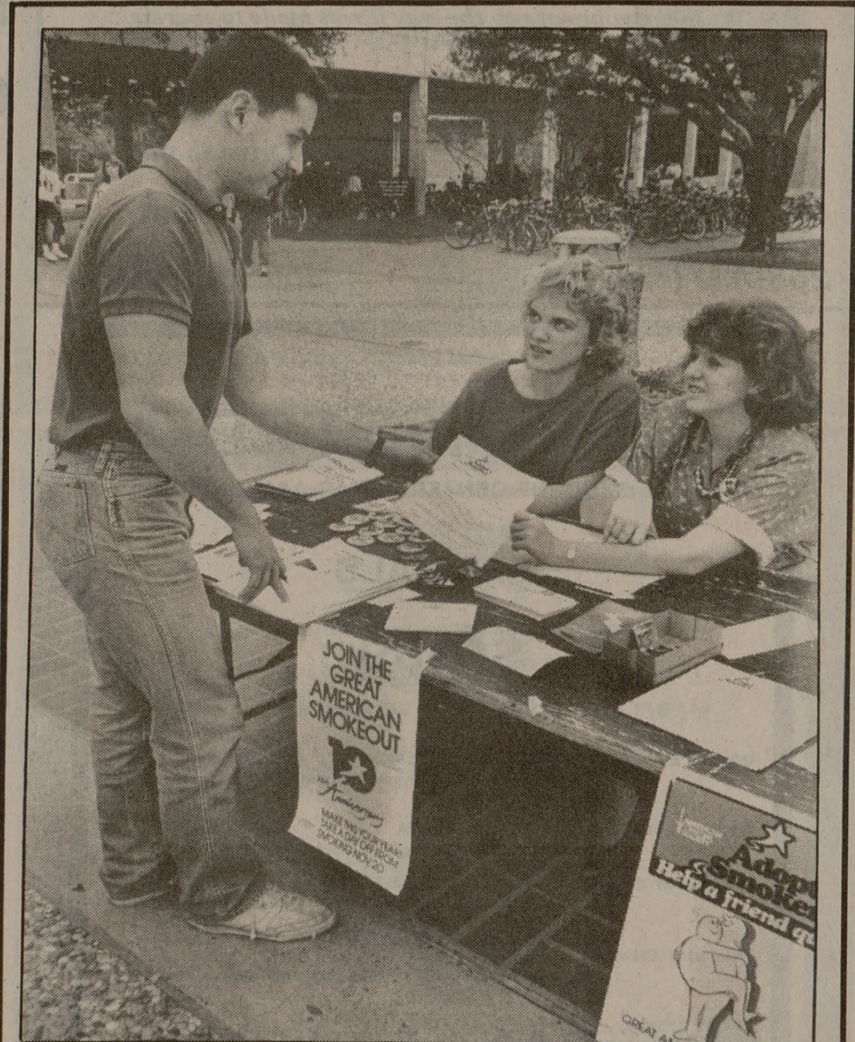


Photo by Greg Bailey

Smoke 'Em Out

Laurence Alvarado gets some advice Wednesday from Karen Barnett, left, and Allison Hendrix on how to help a friend stop smoking. The Great American Smokeout takes place today.

Researcher stresses safety of genetic vaccines

By Christi Daugherty
Staff Writer

The importance of preventing infectious disease and the existence of federal regulations should lead to a greater acceptance of genetically engineered vaccines, a Baylor College of Medicine researcher said Wednesday.

Dr. Saul Kit, the head biochemist in the Division of Biochemical Virology at the medical center in Houston, spoke on the safety of genetic engineering as part of the E.L. Miller Lecture Series.

The lecture series is being sponsored by the Memorial Student Center's Political Forum committee, and continues all day today.

Kit said that despite fears to the contrary, the new genetic vaccines are proving to be safer than conventionally developed vaccines.

He explained that although many people think of conventional vaccines as completely safe, the only outbreaks of the polio virus in recent years were traced back to polio vaccinations. Sometimes a conventional vaccine becomes unstable and reverts to virulence, he said.

He said several problems underscore the need for an increase in genetic engineering technology. These include the existence of viruses such as influenza and St. Louis Encephalitis, and the dramatic increase in the number of AIDS cases.

"AIDS is exploding into a world-

"People are going to make noble comparisons between genetic engineering and nuclear disasters. They'll say science is enticing but a potential exists for disaster."

— Dr. Saul Kit of the Baylor College of Medicine.

wide epidemic," Kit said. "AIDS cases have been reported in 74 countries.

"Through October of 1986, AIDS has struck over 26,000 adults and 300 children in the United States. Fifteen thousand of these have died, and the number is expected to double in the next 14 months."

Even if a preventive vaccine already existed, he said, the number of those afflicted with AIDS would reach more than 200,000 by 1990, and 100,000 of those would die.

mans and animals, he said, especially in Third World countries where the majority of the population is either not inoculated at all, or is inoculated improperly.

Science has been relatively successful in eradicating some viruses, most notably smallpox and polio, he said. But even the successes have often had a darker side.

"The last reported case of smallpox was in Somalia in 1977," Kit said. "But in some countries the smallpox vaccination actually be-

came more dangerous than the disease."

He said many people died because of problems from the vaccination.

"Shortcomings such as these can be overcome by genetic engineering," Kit said.

Kit said the potential always exists for danger with conventional vaccines, while genetically engineered vaccines would not likely revert to virulence, and would not have that particular danger.

"Genetically engineered vaccines are flagged so they can be traced," he said. "If it turned on the host and became virulent, the cause could be traced back to the vaccine."

He said there is no similar way to trace conventional vaccines.

Most people fear genetic engineering simply because they do not understand it, he said.

"People are going to make noble comparisons between genetic engineering and nuclear disasters," he said. "They'll say science is enticing but a potential exists for disaster."

"My message is that we're thoughtful human beings, and we needn't be afraid of science and technology."

Verification ends Friday for senior ring deadline

Wednesday is the last day to order Aggie rings this semester, but students must submit their names for eligibility verification by Friday, a ring office spokesman said. Verification should be completed by Tuesday.

However, assistant ring manager

Lynn Scott said that ring orders will be taken again starting about Jan. 7.

She said if students order their rings by the end of January, they should still receive them before graduation.

Rings that are ordered by the Wednesday deadline should arrive by the beginning of April, Scott said.

We're Entertainment!

MEET HARVEY MARTIN

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NOV. 21
4 until 6 p.m.

Harvey Martin, the Dallas Cowboys' top All-Pro pass rusher, has seen it all — from the seaminess of drug usage in the NFL to his own most glorious moment, when he was named Co-Most Valuable Player with Randy White in Super Bowl XII. Now Harvey tells it all: what life for the players in major-league pro football is really like, both on and off the field.

Here is Martin's own story to date — his early struggles to overcome a hereditary jaw disfigurement and shyness; about making it into the Cowboys against all odds; about becoming a millionaire, losing it all — and staging an inspiring comeback.

Far more than just scores and analyses of plays, this book is filled with character, anecdote, and behind-the-scenes revelations. Martin's absorbing account of his life with the team and what it takes to make a championship team tick provide readers with an outstanding personal story of one man's effort to cope with the stresses of sports stardom.

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