

OPINION

THE BATTALION

Debate on stem cell research continues

(U-WIRE) — Freezers at in vitro fertilization clinics, full of frozen surplus embryos, teem with the potential for life. Yet without a uterus into which they can be implanted, these embryos will never develop into human beings.

According to the Journal of the American Medical Association, there are roughly 100,000 such frozen embryos at these clinics with no hope of becoming people.

Yet these tiny potential lives can thrive in another way — with the consent of the progenitors, scientists can culture a spare embryo to grow until it becomes a hollow sphere of cells called a blastocyst, roughly four days after fertilization. Scientists can then harvest cells from the blastocyst known as pluripotent stem cells, which are capable of forming virtually every kind of cell found in the human body.

These miraculous little cells can be coaxed into developing into cells and tissues to treat a myriad of diseases, conditions and disabilities including Parkinson's and Alzheimer's diseases, spinal cord injury, stroke, burns, heart disease, diabetes, osteoarthritis and rheumatoid arthritis, according to the National Institutes of Health (NIH).

For a patient with chronic heart disease, stem cells could be used to grow new heart muscle. For a patient with Alzheimer's, neural stem cells could be harnessed to stimulate growth in the brain. In fact, scientists have performed these kinds of transplants on mice and rats with astounding success. For treating leukemia, the therapeutic impact of stem cells has already been realized in humans, helping thousands of patients who cannot find a matching donor for bone marrow transplants.

"There is almost no realm of medicine that might not be touched by this innovation," the NIH report.

Despite these promising medical developments, debate rages within the Bush administration over whether to axe federal funding for research involving human embryonic stem cells altogether.

In late April, the Department of Health and Human Services ordered the institutes to postpone decisions regarding grants for human embryonic stem cell research while the government clarifies its funding policy. Thus, while stem cell research proceeds overseas in countries including Israel, Australia and the United Kingdom, and in privately funded projects in the United States, the federal granting process has come to a halt, leaving researchers in the lurch.

For that reason, actor and quadriplegic Christopher Reeve filed a suit against the government in May for causing "irreparable harm" by delaying research grants. Reeve's spinal cord injury is among the disabilities that might be treated by techniques arising from stem cell research.

The existing NIH guidelines for funding stem cell research, which were established in August 2000, do merit review. Every year since 1996, Congress has approved a law that prohibits using federal money to finance research in which an embryo is destroyed. Yet embryos are destroyed when their stem cells are harvested.

Under the Clinton administration, federally funded research involving human embryonic stem cells proceeded through a kind of loophole —

federally funded research could use, but not harvest, embryonic stem cells. In other words, federally funded research projects were purchasing the requisite cells from private companies rather than harvesting the cells themselves.

Uneasy with the source of embryonic stem cells, many right-to-life advocates would like to see researchers using cell lines that were derived from adult stem cells alone, or, more moderately, from adults and fetal tissue from therapeutic abortions. Although very recent medical developments suggest that adult stem cells may have more potential than was previously believed, most scientists would argue that they do not have the same potential as embryonic stem cells.

As George Q. Daley, M.D., Ph.D., Whitehead Fellow and assistant professor at Harvard Medical School said, "I think it is fair to say that no practitioner in the field today believes that embryonic stem cells and any defined adult stem cell are equivalent in their potential."

Adult stem cells do not have the same capacity to proliferate as embryonic stem cells, do not exist in all tissues of the body, are often only found in small quantities, and are difficult to isolate and purify. Additionally, adult stem cells may show negative impacts of aging, such as more DNA abnormalities.

Embryonic germ cells, which are taken from fetal tissues after therapeutic abortions, thus posing less of an ethical dilemma than do embryonic stem cells, are also believed to have only limited usefulness in scientific research. Whereas embryonic stem cells appear to be immortal, scientists have not been able to culture these germ cell lines for more than 21 days.

If these other types of stem cells prove as potent for medical advances as embryonic stem cells, it would be a boon, relieving us of at least one moral quandary. But it is too early to tell.

"I want to argue against the idea that we can, at this stage of knowledge, express a preference for embryonic stem cells or adult stem cells," said Daley at a briefing to policy makers in Washington. "It is in the greatest public interest to move forward on both fronts."

Kevin Fitzgerald, Ph.D., Jesuit priest, molecular biologist and ethicist at Loyola University Medical Center in Chicago, offered a refreshing perspective in a recent issue of the Journal of the American Medical Association: "One of the things that intrigues me, not just in stem cell research but in the new genetic, molecular and cellular technologies, is that often we view these things in the context of running a race against disease.

This metaphor brings to mind the following questions: What kind of race are we running? What kind of race do we want to run? Will there be winners and losers, and who might they be?"

The moral quandary of stem cell research is not as simple as whether or not a frozen embryo has moral status or whether it has a right to life.

On the other side are the sufferers, not only Christopher Reeve and Michael J. Fox, who suffers from Parkinson's disease, but our own neighbors, co-workers and loved ones. We are forced to pit the ethics of creation against the ethics of healing.

Rebecca Meyer
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Give us birth control

Health care for both sexes must be provided

The first court ruling dealing with gender equity in prescription drug coverage was given last week in Seattle, when a federal judge ruled the Bartell Drug Company discriminated against women by excluding prescription contraceptives from its health care plan.



JESSICA CRUTCHER

The lawsuit said Bartell violated the Pregnancy Discrimination Act by refusing to cover contraceptives while paying for all the basic health care needs of male employees. While this ruling does not solve all women's insurance problems, it does set a valuable precedent that will help many female employees stand up for their rights.

Birth control is more than a pill women take to keep from getting pregnant. It is also affordable preventive medicine for a large company.

According to a 1998 study by the Alan Guttmacher Institute, the cost of adding contraceptive coverage to a company health care plan is approximately \$1.43 per employee per month.

Prescription contraceptives are an effective way to prevent unwanted pregnancies, which keeps employers from having to deal with medical leaves for an abortion or birth. Surely it is worth \$1.43 a month not to have to work with these complex, and certainly more expensive, medical problems.

In December, the Equal Employment Opportunity Commission ruled that "Employers who offer insurance coverage for preventive health care, like drugs to lower blood pressure or cholesterol, must also cover prescription contraceptives," according to the *New York Times*.

This makes sense, considering that the hormones in oral contraceptives have been proven to help prevent and treat other common female health problems. The American Academy of Family Physicians (AAFP) endorses the use of oral contraceptives for many conditions, including acne, benign breast cysts, severe menstrual cramps, functional ovarian cysts, abnormal uterine bleeding, PMS and for the prevention of ovarian and endometrial cancer. Women who use oral contraceptives get these types of cancer at around half the rate of non-users, according to the AAFP.

If all major preventive health care needs are covered for men, it is only reasonable



RUBEN DELUNA/THE BATTALION

that women receive the same treatment. "Male and female employees have different sex-based disability and health care needs," said Judge Robert S. Lasnik, who ruled on the Bartell case.

Only women can get pregnant or give birth, and only women suffer from many of the health problems that birth control can help prevent. Providing women with

prescription contraceptives through company health care is fair and economical. Therefore, more companies should start providing both sexes with adequate health care before further litigation is necessary.

Jessica Crutcher is a junior journalism major.

Mail Call

Alternative education programs are actually helpful

In response to J.J. Trevino's June 18 column.

J.J. Trevino's June 18 opinion piece about the hiring of non-certified or emergency certified teachers was way off the mark. While there have been people hired as teachers who have turned out to be bad seeds, that is the fault of the particular school district, not a

fault in the practice of hiring non-certified teachers.

Schools have to put teachers in the classroom. Unfortunately, most people do not view teaching as a choice profession. It is a fall-back plan for this age of high-pay technology careers. Having an uncertified teacher leading a classroom is much better than having one teacher in front of a class of 60 or 70 high schoolers because a school is understaffed. All of the teachers a school hires, certified or not, have at least a bachelor's degree. Many districts require a

degree to even become a substitute. If certification is such a huge concern, let's look at a university faculty. How many of our faculty members have gone through any kind of teacher certification program? Outside of the College of Education, I am sure very few.

The alternative certification programs which Trevino attacks are very good ideas. Trevino says it is a bad idea to put a teacher-in-training in front of a class.

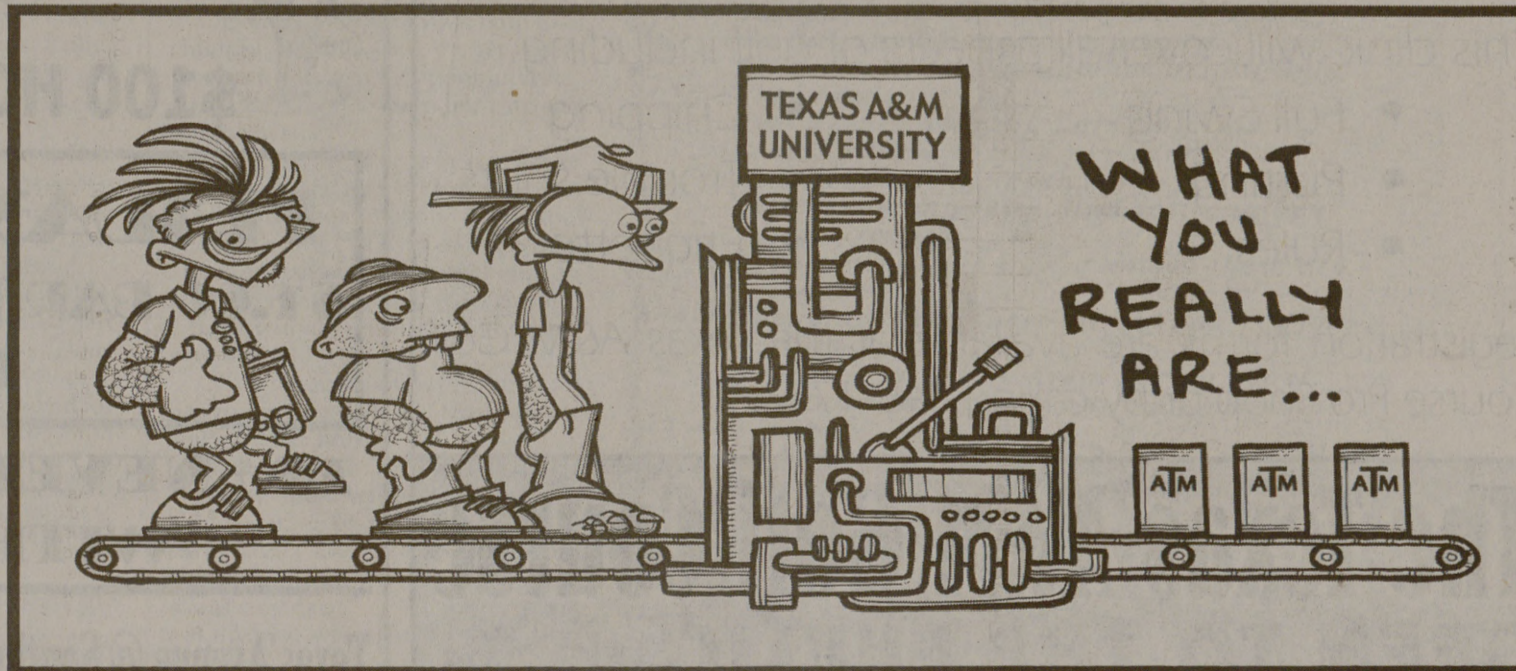
What do you think student teaching is? Everyone who is in any kind of certification pro-

gram goes through it, and how can we train teachers if they don't get any classroom teaching experience in that training?

Teaching training and certification are very important, but we also need to attract more people to this noble profession through more funding. Then maybe more people would be willing to go through the rigors of teacher certification, therefore increasing the quality of our schools.

Judd Bristo
Class of '01

CARTOON OF THE DAY



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