

UNINTENDED CONSEQUENCES

Can our discussion of stem cells be divorced from IVF?

In the early 1990s, Doug Melton got the news that changed his life. His infant son, Sam, was diagnosed with type-1 diabetes. Melton, a Harvard biologist, had been studying the development of frogs. With the news of Sam's condition, he vowed to devote his life to finding a cure.

Melton's resolve was strengthened when his daughter, Emma, was diagnosed with diabetes as well. His research led him to believe that embryonic stem cells—taken from “leftover” embryos created during in vitro fertilization (IVF)—held the most promise for curing his children.

Melton was the driving force behind the new, privately funded Harvard Stem Cell Institute, which is dedicated to finding cures for diseases like diabetes, Parkinson's, muscular dystrophy, and leukemia.

“I have only done what any father would do,” Melton told the *Boston Globe*.

Another leading stem cell researcher, Jack Kessler of Northwestern University, has a similar motivation—when his daughter, Allison, was paralyzed in an accident, he began searching for a cure. His research in spinal cord injuries also led him to embryonic stem cells. In a *Chicago Tribune* editorial Kessler made an urgent plea for lifting federal limits on stem cell research, which were imposed in 2001 by President Bush.

“I want to see my daughter walk

again,” Kessler wrote.

Melton and Kessler, along with former first lady Nancy Reagan, are some of the most passionate advocates for embryonic stem cell research. They represent the hopes of millions of others who desperately want to find cures for the people they love. They believe that using leftover IVF embryos for research is a better choice than discarding them.

Kessler put it this way: “I find it impossible to believe that it is morally or ethically superior to discard such embryos rather than to use them for research devoted to curing human diseases.”

Christian response to embryonic stem cell research has been divided. While remaining opposed to creating new embryos (or cloning embryos) specifically for research, some believe that using embryos for research is ethical, under certain circumstances.

The Presbyterian Church USA, United Methodist Church, Episcopal Church, and United Church of Christ have all passed statements supporting embryonic stem cell research, seeing it as following Christ's example of healing the sick. Those statements stress that only leftover embryos slated for destruction may ethically be used for research.

The Evangelical Covenant Church, like the Southern Baptist Convention and the Roman Catholic Church, has approved a statement that opposes stem cell research. At the 2004 Annual Meet-

ing, Covenanters adopted a resolution that argues that using embryos to obtain stem cells turns developing human life into “a commodity or as a means to an end” and undermines “the value that God accords to human beings.”

The resolution goes on to say, “We therefore, oppose the research or therapeutic use of human embryos, or cell lines derived from the destruction of human embryos.”

But serious questions remain about both Christian responses to embryonic stem cell research. The first is this: can we develop and manufacture cures from stem cells using *only* leftover embryos?

That is doubtful, according to stem cell researchers Robert Lanza and Nadia Rosenthal. The problem, as Lanza and Rosenthal point out in the June 2004 *Scientific American*, is tissue rejection. While the moral status of the human embryo remains in dispute, each embryo has its own unique genetic code. Without a close genetic match, transplanted embryonic stem cells could be rejected much like a transplanted organ.

Overcoming tissue rejection “could require millions of discarded embryos from IVF clinics,” according to Lanza and Rosenthal. But a 2003 report from the Rand Corporation found only about 11,000 frozen embryos available for research.

The implication is that full-scale stem cell research and the manufacturing of cures could mean using not



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just spare embryos but millions of new embryos created specifically for those purposes.

The second question is this—if stem cell research is immoral because it involves the routine creation and destruction of human embryos, what about IVF, which also involves the routine destruction of embryos?

The Covenant's statement, like those of many Protestant churches, does not specifically address the question of IVF. (The Roman Catholic Church has consistently opposed IVF and other reproductive technologies.)

But a number of Protestant ethicists have begun to question the ethics of both embryonic stem cell research and IVF. Gilbert Meilaender, professor of Christian ethics at Valparaiso University, said the fate of frozen embryos is just one moral problem with IVF. Another is how it encourages people

to see an embryo "as a product that we can do whatever we like with."

"We haven't been careful enough," said Meilaender, who is a member of the President's Council on Bioethics. "It isn't sufficient to say that getting a baby is a good thing."

Ethicists like Meilaender and Amy Laura Hall of Duke Divinity School argue that the practices of IVF—the routine creation, freezing, and discarding of embryos—undermine the value of developing life.

"It is very difficult to affirm that life begins at conception and affirm the practices of IVF—watching the sperm and egg meet under the microscope, then cryo-preserving some embryos, or discarding certain embryos of lower quality," says Hall.

With IVF growing more and more commonplace—an estimated one million babies have been born worldwide

through the process—asking questions about its ethics becomes more and more difficult. It's a quandry that Hall finds herself in—she has several close friends whose children were conceived through IVF.

"The children who have been born this way are God's gifts," she says. "I just think God would have preferred we not use this technology to get them."

Those questions are exacerbated because IVF remains a largely unregulated field. As author Robin Marantz Henig notes in her book, *Pandora's Baby*, IVF was considered too controversial for government funding when it was developed in the 1970s.

"The result was that the research continued anyway, but outside the reach of the federal government," says

Bob Smietana is features editor of the *Companion*.

Marantz Henig in an interview at www.houghtonmifflinbooks.com. “IVF is still basically unregulated, and it’s controlled more by market forces than by government oversight,” she added.

Any government regulation of IVF seems unlikely in the near future. When the President’s Council on Bioethics (www.bioethics.gov) proposed that the federal government begin regulating IVF, it met with fierce resistance from infertility groups and IVF clinics. The issue of IVF regulation was removed from the council’s final report this spring.

Some Christian couples who choose IVF have begun to impose their own limits on the process (see sidebar). These limits have a heavy price—by intentionally reducing the number of embryos created by IVF, the chances of the process succeeding diminish.

But others, like Hall, wonder that it may be too late to reform the unregulated practice of IVF. This past spring, Hall was one of a group of Methodist theologians who drafted a new bioethics policy for the church’s General Conference. While the original draft did allow for embryonic stem cell research (a position Hall dissented from), the committee urged United Methodists to forgo using IVF; and if they did choose IVF, to intentionally limit the number of excess embryos. But during the General Conference, all references to IVF were cut from the statement, and delegates endorsed embryonic stem cell research by a vote of 708 to 171.

But as the debate on the ethics of embryonic stem cell research continues, Hall says, Christians cannot ignore the issues raised by the practices of IVF.

“The question of embryonic stem cells has to take evangelical Christians back to the point of asking ourselves the hard questions of our use of IVF,” Hall says. “It’s a real test for us and we are being asked to sacrifice for this. Are we willing to rethink practices that we moved forward without thinking carefully about their implications?” □

TAKING CHARGE: *One Covenanters’ IVF Story*

I am part of a club I never wanted to join. Two years ago, my husband and I were diagnosed with infertility. I had known something was wrong and was certain we were headed for this diagnosis, but there was something so final about hearing it from a doctor.

After my doctor lowered the boom, he explained our medical options. Some interventions were pretty basic; others were very invasive. And a new set of struggles began. Are we playing God if we try these procedures? Are all fertility treatments biblical? How do we know?

So we prayed. We asked God to give us wisdom, that he would preserve our relationship, that we would learn to trust him better. We asked him to send people to us who could support us in this journey. Most of all, we asked him for a child, our child.

After a number of treatment options failed, our reproductive endocrinologist (RE) recommended that we consider IVF. At first, we were not sure this was the right decision.

There wasn’t one particular moment we felt God leading us to IVF, but rather a series of events and experiences pointed in that direction. Before we were even discussing starting a family, some friends told us about their experience with IVF, which involved four attempts before conceiving their son. We asked them how they had resolved the issue of leftover embryos. They told us that because of their specific medical problems they never had extra embryos to freeze. This was the first time we realized that IVF treatment did not always require the freezing of extra embryos.

During the stressful early days after being diagnosed, a friend gave me a book about finding God’s peace in infertility. The book described several couples’ approach to treating infertility, including IVF. One couple pursued IVF, but put limits on how many eggs could be fertilized so that none would be frozen. The thought of taking charge of the process instead of letting a doctor or a clinic decide felt right to us.

We obtained a second opinion

from another RE. He also recommended IVF. We discussed our concerns with him, and he suggested either transferring the embryos back into my body at a time when they were not likely to implant or donating them. We did not see much difference between the first option and discarding the embryos, and my husband did not like the second option. He was concerned that his biological children might be raised by someone else. At that time, I met a woman on my on-line fertility support group who had seventeen leftover frozen embryos. I began to think that her situation would be worse than never attempting IVF at all.

After several months of discussion, we decided to try IVF, with restrictions. We agreed to limit the number of embryos to be created, and to allow two embryos to be transferred at a time. We agreed to freeze any extras and to continue IVF until our family was complete. If any embryos remained, we would donate them within five years.

The fertility clinic told us that we were reducing our chances of conceiving by limiting the number of fertilized eggs. Only transferring two embryos would further reduce our chances of success. We felt our decision was the right one.

The doctor retrieved nineteen eggs from my ovaries. We allowed the clinic to fertilize eight, and three days later, two of them were transferred to my uterus. The rest were allowed to continue growing for two more days and then those that were still growing would be frozen. None of the six remaining survived, however.

A few days later, a pregnancy test confirmed that those two beautiful and perfect embryos had implanted successfully. I am now pregnant.

A long journey still remains ahead of us, but for now, we are simply experiencing the long awaited joy of being expectant parents. □

Editor’s note: The author of this article has, for reasons of personal safety unrelated to her IVF experience, requested that her name be withheld.