Without question, the biggest bioethics event in the 2004 election was the passage of Proposition 71 in California, making embryo research and research cloning state constitutional rights and providing $3 billion in public funding for this research over the next ten years. There is little reason to rehash the many arguments against the proposition, both moral and prudential. Funding embryonic stem cell research rather than saving the state's failing emergency rooms seems like a deformation of civic priorities. And making the creation and destruction of nascent human life, as well as the perfection of the techniques necessary to clone human children, a constitutional right seems like a moral and political error. We will also not rehash the misleading character of the law itself, which describes human embryos as "products," and conceals the fact that such embryos are necessarily destroyed to procure embryonic stem cells, and pretends that "somatic cell nuclear transfer" is simply a technique to produce stem cells rather than the technical name for human cloning.

In the end, the various objections to Prop. 71 did not convince the people of California, who were barraged with over $20 million of advertisements and advocacy promising that stem cells would cure many dreaded diseases and spur the California economy. It is now time to assess what Prop. 71 means, especially how it alters the national debate about embryo research, human cloning, and an array of emerging biotechnologies that would degrade human procreation and the human family. More concretely, for those who care about human dignity in the biotech age, what is the political agenda for the term ahead?

The story of Prop. 71 actually begins in Washington, D.C., with scientific discontent over President Bush's 2001 decision to authorize federal funding for only a limited number of embryonic stem cell lines. Comparing the Bush policy to the Church's suppression of Galileo, scientists and advocates demanded more funding for more lines, without moral limits. They sought public dollars to destroy human embryos indefinitely.

Frustrated with the prospects of overturning the Bush funding policy, realizing that they were far more powerful in Sacramento than in Washington, and seeing that California could offer more funding for
embryonic stem cell research than the NIH ever could, the stem cell lobby seized a political opportunity with ruthlessness and skill. Most were moved by an honest compassion for the sick and suffering, and an honest belief that embryonic stem cells are more promising than non-embryonic stem cells. But the scientists involved were also driven by the dream of lavish laboratories supported from the state treasury. And the patients’ groups were driven by the professional advocate’s need for political victories, a much easier feat than curing Parkinson’s or Alzheimer’s. Most research advocates failed even to acknowledge the moral dilemma involved in creating and destroying human embryos en masse for their stem cells, describing embryos simply as raw materials (or “products”) and treating all opposition to embryo research as religious fanaticism.

To be fair, many scientists, no less vigorous in their support for stem cell research, sought to moderate the public’s expectations. They sometimes cautioned their peers against promising cures that may never come, certainly not right away. But even these scientists seemed to believe that the scientific end justified the political means, and they were largely unwilling to challenge their more shameless peers in the public square.

What is clear is that Prop. 71 will almost certainly have significance far beyond California:

• Many leading cell biologists around the country and around the world, especially young scientists hungry for funding and prestige, will flock to California to work on embryonic stem cells. This could hurt stem cell research in other university centers, at least temporarily, and it will move legislators in various states to offer “counter-legislation” to keep or win back their own stem cell scientists. Indeed, Wisconsin Governor Jim Doyle has already announced a $750 million initiative to bolster embryonic stem cell research at the University of Wisconsin and elsewhere.

• The scientific community will now have no political excuse if stem cells fail to realize their touted medical promise. For three years, the scapegoat for preventing “cures now” was the Bush administration’s policy of limited federal funding. Slow progress was blamed on the religious right. But even if John Kerry had been elected, the NIH would never have provided as much funding for this research as California has now pledged over the next ten years. In the world after Prop. 71, there are no limits except biological reality and scientific skill. And if cures do not ultimately come, the credibility of scientists could suffer badly.

• The concentration of so much scientific talent in California will lead to the perfection of “somatic cell nuclear transfer” (SCNT) in human
beings and the mass creation of cloned human embryos, the first step towards bringing cloned children to birth. The California law will also help normalize this research at other leading scientific institutions, such as Harvard, which is now in the process of giving official approval for research cloning in its own laboratories. Scientific papers on SCNT will fill the academic literature, available to all, here and abroad, whatever one’s motives. In time, cloned embryos will be implanted into the wombs of clone-seeking individuals. These embryos will likely develop beyond the blastocyst stage, resulting at first in grotesquely deformed fetuses who die during pregnancy, and perhaps eventually in the first cloned human babies. Indeed, after saying confidently for years that it would be impossible to clone primates, Dr. Gerald Schatten of the University of Pittsburgh has now cloned monkeys to the blastocyst stage, with just a little instruction from the South Korean team that produced the first cloned human embryos. How long will it be until the cloning of human blastocysts becomes a routine procedure? And can the production of cloned children be very far behind once a cloned monkey is born?

- At the same time, one broad lesson of the election is that California’s values are not the nation’s values. This is especially true when it comes to the dignity of the procreative human family, as passage of pro-marriage amendments in 11 states clearly demonstrates. And just as the California initiative will prompt many liberal states to consider stem cell funding programs of their own, the institutionalization of embryo destruction and research cloning in California, New Jersey, and elsewhere may move many conservative states to set ethical and political boundaries. In the end, a patchwork of state laws will emerge, embodying the different values of the nation’s many different communities.

In the meantime, the national bioethics debate remains narrowly focused and politically stalled, and those worried about the brave new world remain on political defense. The Bush policy limiting federal funding to existing embryonic stem cell lines advances an important moral principle: we should not destroy some human lives to benefit others, and we should not make the creation and destruction of human embryos the foundation of American medicine. But the practical effect of the Bush funding policy is severely limited, especially after Prop. 71 in California. It does nothing to limit embryo destruction in the private sector, and it does nothing to limit other radical biotechnologies at the beginning of human life. Such novel degradations—some imminent, some projected—include the production of cloned children, the creation of children with two male or two
female genetic parents, the creation of children with dead embryos or dead fetuses as parents, the implantation of human embryos into animal wombs, the creation of hybrid embryos using animal sperm and human eggs (or vice versa), and growing parental control over the genetic characteristics of offspring. At stake is not only the dignity of nascent human life, but what it means to be a parent and child, a mother and father, and even what it means to be a human being.

In the one area where the Bush administration has attempted an “offensive” bioethics agenda—the effort to ban all human cloning—debate in the U.S. Senate is now stalled, as it has been for the last two Congresses. The result is that we are left playing defense for a stem cell funding policy with limited practical effect. And we are playing offense only for the important but limited goal of banning human cloning. The status quo remains a nation without limits, with human embryos destroyed daily in America’s laboratories and radical new ways of making babies entirely legal if and when they become possible. Thus it seems time to reexamine and expand the Bush bioethics agenda, lest another four years pass by with no legislative success, especially with a president and a Congress as friendly to human dignity as we are likely to see in a very long time.

Clarifying this agenda requires understanding the human goods it seeks to promote and defend. Rightly understood, the brave new world problem involves two distinct threats: (1) the destructive exploitation of nascent human life as an experimental resource, and thus the violation of the principle that all human beings possess equal and inviolable worth; and (2) the degradation of human procreation and the human family, by turning pregnancy into a research technique, by transgressing the species boundary between human and non-human life, or by manufacturing children without the normal familial bonds that connect the generations to one another. To answer these twin threats, we suggest two parallel strategies, building on and expanding the moral aspirations of the Bush policy on embryonic stem cells and the Bush agenda on human cloning in the first term. The first strategy is an embryo research strategy; the second strategy is a human procreation/human family strategy.

The first strategy would seek to ban the creation-and-destruction of any human embryo solely for research. Just like the Brownback bill attempting to ban all human cloning, such a law would prohibit the creation-and-destruction of cloned human embryos solely for research purposes. But unlike the Brownback bill, it would also ban the creation-and-destruction of IVF embryos solely for research purposes.
We have no illusions that passing such a law will be easy in the Senate. But the current stalemate over whether to ban all human cloning should not discourage us. Indeed, when asked whether they believe scientists should be allowed to create-and-destroy human embryos solely for research—even potentially life-saving research—the public overwhelmingly says no. Yet, surprisingly, we have never had a full legislative debate on this central question. Proposing a ban on “creation-for-destruction” would fundamentally reshape the terms of the debate—passing swiftly in the House and forcing a national conversation in the Senate. It would compel research advocates to try to defend the creation-and-destruction of human embryos solely for research, instead of pretending, as they often do, that cloned embryos are not really embryos and that cloning is not really cloning. Such a proposal would have no less support in Congress than the comprehensive cloning ban, and could very well have more. So why not fight for the larger principle in its entirety—we do not create human life to destroy it for research—rather than limit ourselves to a fight about cloned embryos alone? Human embryos produced for research by IVF are no less human, and no less inhumanely treated, than are those used and destroyed by research cloning. So why not seek a law that prohibits the utter exploitation of all nascent human life, and that stops proponents of embryo creation-and-destruction for research from hiding behind false claims that the product of SCNT is not really an embryo?

This strategy would also hold accountable those who argue that embryos left over in fertility clinics are usable because they are “going to die anyway.” We reject this moral argument on the merits, since such embryos are “destined to die” only because we put them there in the first place and then abandoned them. But we also recognize that the question of what to do about the 400,000 or more so-called “sprises” is a hard, indeed, tragic dilemma with no obvious moral or political answer. Nevertheless, many advocates for embryo research hide behind the “sprises” argument to defend a status quo that also permits the surreptitious creation-and-destruction of new embryos solely for research. We should force those on the secular left and libertarian right to try to defend this grotesque practice explicitly, and force those moderates—especially Democrats in red states—to face a political choice: Am I for the creation-and-destruction of human embryos solely for research or am I against it?

The second part of the bioethics offense should seek to defend and advance the dignity of human procreation and the human family. To clone a human child is to wreak havoc on the ties that bind the generations;
it is to make our twin brothers into sons and twin sisters into daughters. It is to impose our perverse self-love and misguided designs on innocent children, as parents aim to satisfy their own selfish wishes by saddling a child with a genotype that has already lived and a life in whose shadow the child must always live. But cloning is merely a small part of a larger project to transform procreation into manufacture, and, with it, the nature of parenthood and the meaning of family ties. This larger project aims to create a world where male and female no longer matter, where welcoming the newborn child as a mystery gives way to an age of genetic control, where we create orphans by design and children without biological mothers or fathers.

Fortunately, our moral sensibilities still revolt at this prospect. While the nation may be divided about the ethics of embryo research, there is a widespread consensus against those radical reproductive technologies that would degrade human procreation. The challenge, therefore, is to enact this widespread moral consensus into national law, and the best way to do so is by enacting, in slightly modified form, most of the legislative recommendations offered by the President’s Council on Bioethics in its 2004 report titled *Reproduction and Responsibility*—recommendations endorsed unanimously by council members who disagree vigorously on the embryo research question. Taking a properly broad view of the challenges new biotechnologies pose to human dignity, the Council sought to erect barriers that would keep human procreation human: barriers against crossing the boundary between the human and the non-human; barriers against exploiting women and degrading human pregnancies; and barriers against denying to children born with the aid of new technologies the same rights and attachments available to all children.

To defend these human goods, the Council offers a series of legislative recommendations: Congress should prohibit the transfer of a human embryo into an animal uterus; prohibit the production of a hybrid human-animal embryo using human sperm and animal eggs or animal sperm and human eggs; prohibit the initiation of a human pregnancy for any purpose other than to attempt to produce a live-born child; prohibit the buying, selling, or patenting of human embryos; and prohibit the creation of children by any means other than the union of egg and sperm, or by using gametes obtained from a human fetus or derived from human embryonic stem cells, or by fusing blastomeres from two or more embryos (thus creating children with four or more genetic parents).

This final prohibition, which seeks to protect the rights and dignity of all human children, would encompass a ban on (among other things) the
production of children using techniques of human cloning. It thus intersects in part with the long-standing political divide between competing anti-cloning legislation—that is, between the Brownback bill (banning all human cloning) and the Hatch-Feinstein bill (banning the implantation of cloned embryos to initiate a pregnancy, while endorsing the creation-and-destruction of cloned embryos for research). As described above, we believe the Brownback strategy should be altered and expanded, since it deals only partially with the embryo research problem (by doing nothing about IVF embryos) and only partially with the threat to human procreation (by banning human cloning, but remaining silent on the other radical new ways of making babies).

The national debate on embryo research will continue. But in order to have this debate on its proper grounds, we believe it makes far greater political and moral sense to seek a ban on all creation of human embryos (IVF or cloned) for research purposes alone. In the meantime and in parallel, we can defend the dignity of human procreation by banning cloning-to-produce children and other perverse ways of making babies, using language that does not undermine the inviolable principle that no human embryo should be destroyed for research. This broader approach, more ambitious in scope than the Brownback bill and more ethically responsible than the Hatch-Feinstein bill, has not yet been tried or considered in the legislative square.

Such a law would prevent attempts to conceive children through cloning (or other radical reproductive techniques) by banning the creation of cloned human embryos (or other perversely produced embryos) with the intent of implanting them to initiate a pregnancy. Such a law would not mandate the destruction of any human embryos, the way a ban on implanting cloned embryos explicitly does. It would not endorse the use of any human embryos for research, the way the Hatch-Feinstein bill does. And it would allow, perhaps explicitly in law, that if such embryos were produced and left frozen, individuals of conscience could legally rescue and adopt them, and the resulting children would be welcomed as full members of the human family. Such a law would stop one set of human evils—the degradation of human procreation—while continuing the fight against embryo destruction with our fundamental principles regarding the equal dignity of every human life wholly intact. It is, in the deepest sense, a pro-family agenda.

In his August 9, 2001 speech to the nation, President Bush understood these two fundamental threats to human dignity—one involving the
destruction of innocent human life for research, the other involving the biotechnical abolition of the human family. He made two declarations—one involving embryo research, the other involving human cloning. “In recent weeks,” he said, “we learned that scientists have created human embryos in test tubes solely to experiment on them. This is deeply troubling, and a warning sign that should prompt all of us to think through these issues very carefully.” A few sentences later, he declared that, “I strongly oppose human cloning, as do most Americans.” Since his speech, the creation and destruction of human embryos for research has become more routine, and the age of human cloning (or worse) in the realm of human procreation has drawn significantly closer. The time to be simply troubled is long past; the time for political action is here.

—Eric Cohen, for the Editors