Deepening a National Conversation — My Take on the President’s Council on Bioethics

By William F. May

When Leon Kass accepted the appointment as chair of the President’s Council on Bioethics, he hoped that the Council might produce a series of documents that would deepen a continuing national conversation on bioethics, whatever immediate policy decisions were forthcoming. In his judgment, to wrestle with such questions as cloning, stem cell research, and the genetic enhancement of human beings, the Council would need to stand back from the immediate tactical struggle over federal policies and reflect on the human condition — the whence and whither of being human, the mysteries of mating and parenting, and the human drives that underlie scientific inquiry.

We live out our lives in the setting of two powerful drives — the yearning for perfection and the struggle with the unelected marks and defects that go with our birth. We cope with these drives in daily life chiefly in the setting of the passions, particularly the passions of self-love, intimate sexual love, and parental love. In all three arenas, we struggle both with the yearning for perfection and with the marks of a condition largely given and received rather than self-created or chosen. Parenting, for example, entails a double passion and loyalty — both to the being and to the well-being of the child. Neither loyalty is complete alone.

On the one hand, parents need to accept the child as he is.

On the other hand, parents must also encourage the well-being of the child. They must promote the child’s excellence. If they merely accept the child as she is, they neglect the important business of her full growth and flourishing. Parenting requires transforming love. Attachment becomes too quietistic if it slackens into mere acceptance of the child as it is, but attachment blurs out a rejection of the child as it is if it hammers obsessively on the child’s improvement.

Ambitious parents tend one-sidedly to emphasize the parental role of transforming love. We fiercely demand performance, accomplishment, and results. Sometimes, we behave like ancient Gnostics who despised the given world, who wrote off the very birth of the world as a catastrophe. We increasingly define and seize upon our children as products to be perfected, their flaws to be overcome. And to that degree, we implicitly...
Center Broadens Initiative in Life Sciences and Research Ethics

The Center for Practical Bioethics is known nationally and internationally for its cutting edge work in aging and end-of-life care; however, this premier issue of Practical Bioethics highlights the Center’s ongoing, but less well known, work in the area of Life Sciences and Research Ethics. We began our work in this field with a three-year initiative that addressed problems and offered solutions in human research subject protections, notably the training and honing of Institutional Review Boards about their ethical responsibilities. This year, we are broadening our initiative to address in a rigorous and multifaceted way specific topics in human research, among them stem cell research, the recruitment and enrollment of human research subjects, the ongoing monitoring of clinical trials, DNA testing, and other similarly complex and thorny issues.

On each topic, the Center will conduct a series of dedicated activities that will include public forums aimed at education and information dissemination; national roundtables at which experts in the life sciences and research ethics fields will examine the issues and their differing viewpoints through the filter of ethics; and, finally, publication of a policy briefing series to be distributed to more than 25,000 state and federal legislators and other policymakers to inform them about the ethical dimensions of the life science and human research issues confronting them — and us — with both challenge and opportunity.

The objectives of these activities are twofold: to promote informed policymaking at the state level across the United States; and to increase science and ethics literacy in our own community at the grassroots level. Our goal is that everyone will use the tools of ethics to reach well-reasoned decisions about matters that are no longer arcane or futuristic, but choices that directly affect our lives in this increasingly technologically sophisticated world.

We look forward to your collaboration with us as we go forward in this very exciting area.

M.C. Sullivan

M.C. Sullivan, RN, MTS, JD, contributing editor, is executive vice president of the Center for Practical Bioethics and leader of the Center’s life sciences and research ethics initiatives.

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define ourselves as flawed manufacturers. Implicit in our rejection of the child is self-rejection, a perception of ourselves as failures. We view ourselves as flawed manufacturers rather than imperfect recipients of a gift.

Parents find it difficult to maintain equilibrium between the two sides of love. Accepting love, without transforming love, slides into indulgence and finally neglect. Transforming love, without accepting love, badgers and finally rejects.

E.B. White captured nicely the difficulties of balancing the two contending passions as they pervade daily life: “Every morning when I wake up, I am torn between the twin desires to reform the world and to enjoy the world, and it makes it hard to plan the day.”

It may not overreach to observe that modern science exhibits the two sides of love suggested here. On the one hand, science engages us in beholding; it lets us study and savor the world as it is. On the other hand, science and the technologies it generates engage us in molding, in the projects of transforming, amending, and perfecting the given world. Beholding and molding, the two sides to science.

Further, it can be argued that science today has moved in the direction of a one-sided love. Whereas ancient science celebrated the human power for knowledge, the ability to behold the many wonders of nature; modern science offers the dizzying prospect of the powers that knowledge itself can generate to alter nature and human nature itself. Engineers can engineer not simply the world but themselves. Should we do it? And to what purpose?

Thus the issue of cloning brings together the deep questions we must face in understanding both human parenting and the scientific project itself, as we project and parent (through technology) the human future.
The policy issue of human cloning divides into two issues: (1) cloning to produce a child, a nearly exact genetic replica of a single parent, or (2) cloning for the sole purpose of biomedical research — directed to the treatment of such severe diseases as diabetes, Parkinson’s disease, Alzheimer’s disease, and impairments such as spinal cord injuries.

The chair of the Council on this (and other) issues did not see it as a primary goal of the Council to achieve unanimity. Instead Kass hoped that the staff and Council might draft a report on cloning that all Council members could sign because it stated as fairly and reflectively as possible the arguments on both sides of various issues. At the end of our labors across eighteen months, all members of the Council signed off on the completed document; and all members also registered their vote in favor of a ban on cloning to produce children.

On the second issue — cloning for biomedical research — ten members of the Council voted for a four-year moratorium on federally funded research. A minority of seven Council members, myself included, voted to permit such research, but only with the development of firm regulations governing both federal and privately funded research.

The Ban on Cloning Children

Some people yawned at the Council’s first recommendation advocating a ban on cloning children. No one thinks we ought to experiment grotesquely and lethally, creating almost 300 human fetuses to produce one live human Dolly — an arthritic Dolly at that, now dead. Had the Council done nothing more than ratify the obvious?

But, as judges know, the reasons one offers for a decision can influence future practice as much as the decision itself. If the only barrier to cloning babies is its current lack of safety, then, as science advances and makes it safe to cross that border, why not? Why not permit cloning (Continued on page 7)
From the time of Thomas Aquinas in the thirteenth century until the mid-nineteenth century, the Roman Catholic Church subscribed to the belief that human personhood depended on development of an embryonic body with hands, eyes, and brain. This occurs around the fortieth day after conception and during the fifth week of intrauterine development. Before then, the embryo lacks the infrastructure to sustain sentience. In 1869, Pope Pius IX condemned abortion, but he did not address the question of when personhood begins.

Today, the Roman Catholic Church considers the question of when a person comes into existence to be unanswerable. It might occur as early as the fertilization of an egg by a sperm, and to be safe, even the earliest stages of human development should be protected. Hence, some clergy oppose research with early stem cells, but others, including some notable Roman Catholic theologians, believe stem cell research is morally acceptable.

Father Norman Ford, a Catholic priest and former president of Melbourne Divinity College, has concluded that human personhood cannot occur until after a blastocyst successfully implants in a uterus and begins developing an embryonic body. Before then, he contends it cannot be a person, since individuality has not been established and twinning can still occur.

The late Father Richard McCormick, a Jesuit priest and theologian at Notre Dame University, reached the same conclusion. He held that an individual human life begins no sooner than implantation of a blastocyst in a uterus. A blastocyst in a petri dish, in his view, is not a person and should not be accorded the same moral status as a post-implantation embryo, a developing fetus, or a birthed child. Given the support that these moral philosophers and theologians provide for research with early stem cells, it is not surprising that polls show that the majority of Roman Catholics in the United States favors it.

Both laypeople and scientists must decide for themselves whether research with early stem cells obtained from blastocysts is morally right or wrong. The question should be weighed in the context of faith tradition, beliefs, and personal values, and the answer should be informed by the basic biology of early human development. A person’s thoughtful decision has individual validity regardless of the person’s conclusions.

So far, this essay has focused on research with early stem cells from blastocysts resulting from fertilization of an egg by a sperm. These blastocysts are donated by couples who have achieved their desired family size with the help of in vitro fertilization and who have excess blastocysts remaining in a clinic’s freezer. No one created these blastocysts for use in research. If they are
not donated for research, the clinic will hold them indefinitely in frozen storage.

There is, however, another source of early stem cells for research. A second and quite different source results from a technology known as somatic cell nuclear transfer (SCNT). Blastocysts resulting from SCNT should not be confused with those produced by fertilizing an egg with a sperm. In SCNT, the nucleus of an ordinary body cell is substituted for the nucleus of an egg that has not been fertilized. The transcription factors inside the cytoplasm of the egg activate genes inside the body cell nucleus and cause it to multiply into a cluster of cells that forms a blastocyst with an inner mass of early stem cells capable of differentiating into any specialized cell or tissue in the adult body.

Whereas fertilization of an egg by a sperm creates a unique combination of genes contributed equally by mother and father, SCNT works only with the genes already present in each of the 50 trillion cells of an individual human body. Fertilization conceives a new life; SCNT does not create new life. It turns ordinary body cells of a person conceived years before into early stem cells.

Opponents argue that a blastocyst produced by fertilization is the same as a blastocyst produced by SCNT. In fact, a profound difference distinguishes a SCNT blastocyst from one produced by fertilization. The latter contains a newly created combination of genes found in no other person, living or dead. The former shares the identical nuclear genome of the person donating the ordinary body cell; it is an extension of that person’s body in the same way a tissue culture of skin cells is an extension of the donor’s body.

No one objects to culturing skin cells from a burn victim in a petri dish to expand their numbers so they can cover areas denuded by the injury. Using one’s own cells to replace those lost to injury or disease offends no moral precepts; it naturally occurs every day in the human body. The skin succeeds admirably in this regard by repairing minor cuts and abrasions. Even cells of the liver can regenerate lost or damaged tissue in this vital organ. Unfortunately, many other organ systems in the human body lack the spontaneous ability to engage in significant self-repair.

When neurons in the brain perish because of Alzheimer’s disease, the symptoms of dementia do not diminish although all the genes responsible for making those neurons in the first place still reside in the nucleus of every ordinary body cell, including those remaining in the affected person’s brain. Similarly, when spinal cord injury condemns a previously vigorous person to paralysis, recovery does not occur even though the genes originally directing development of the spinal cord remain in the nuclei of the scar tissue cells at the injury site. The potential for self-repair resides in the genes of ordinary cells inside the bodies of persons with Alzheimer’s disease and spinal cord injury. How frustrating for the victims and their caregivers that medicine cannot yet unlock this therapeutic potential.

Biomedical scientists know how to learn about unlocking the potential for self-repair in the genes of ordinary body cells. By conducting research with SCNT, scientists can explore how to awaken dormant gene programs that recapitulate early steps in development and lead to differentiation of all the specialized cells and tissues of the body. Understanding how transcription factors present in the egg cytoplasm switch genes on and off and reprogram the genome to replace cells lost to disease and injury may someday allow physicians to intervene at the level of a compromised organ and restore normal function. Stem cells produced by SCNT may themselves be returned to the patient’s body to affect needed repair; however, this research strives for the ultimate goal of transforming ordinary body cells directly into the specialized cell type needed to heal the patient.

**“Using one’s own cells to replace those lost to injury or disease offends no moral precepts; it naturally occurs every day in the human body.”**

SCNT holds the key to understanding how the regenerative capacity of the human genome can be awakened and unleashed to allow the body to repair itself. What a loss it would be for humankind if this line of research were foreclosed by the mistaken assertion that it creates new life only to destroy it for the benefit of others. The ends pursued by research with SCNT represent the brightest hope of medicine – restoring normalcy by invoking the healing power of a patient’s own genes. Careful consideration of how profoundly it differs from fertilization should reassure anyone that there is nothing wrong with SCNT as the means to achieve this worthy end.

**“Lay people and scientists must decide for themselves whether research with early stem cells obtained from blastocysts is morally right or wrong.”**

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**William B. Neaves, PhD,** is president and chief executive officer of the Stowers Institute for Medical Research in Kansas City, Missouri. A graduate of Harvard College with highest honors in Biology and from Harvard University, with a PhD in anatomy, Neaves is also a professor in the School of Medicine of the University of Missouri at Kansas City.
Human Stem Cell Research — A Primer
by Gary Pettett

Stem cells are primitive cells that are capable of giving rise to different kinds of tissue in the body; that is, they are capable of transformation. These primitive cells are also capable of self-renewal or regeneration. They can be cultured or immortalized. A cell line is a potentially limitless reiteration of a single group of stem cells.

Human stem cells can be derived from the preembryo; that is, they can be obtained from the inner cell mass of the blastocyst (four to six days postfertilization). They can also be obtained from fetal tissue, umbilical cord blood, adult/child peripheral blood, bone marrow (hematopoietic) cells or from somatic cell nuclear transfer, sometimes called cloning.

Adult stem cells are found in many organs though quantities are often limited. Adult stem cells are most abundant in those tissues with regenerative capability. Isolating/harvesting adult stem cells is often difficult. Further, the potential for plasticity in adult stem cells may be limited. Adult stem cells may not be fully functional, and they are difficult to grow outside the human body. DNA alterations may have occurred from aging and accumulated mutations.

Stem cells from the preembryo are pluripotent (they can become almost any kind of tissue), and they are easily isolated and cultured in laboratory. Each blastocyst contains approximately 200 stem cells that will grow vigorously with stable, normal chromosomal complement.

Somatic cell nuclear transfer (SCNT) takes cells from the body of a live donor which can be used to reproduce a genetic image of the donor, that is, a clone of the donor. It is not yet clear that SCNT can actually be performed with human cells, and it is not clear that SCNT can be used for human reproduction.

The policy options for stem cell research range from doing or permitting no research on stem cells at all to doing or permitting research on preembryonic stem cells harvested from blastocysts produced by SCNT using human oocytes. In between these extremes are six other options. Thus:

1. No research on stem cells at all.
2. Research only on existing stem cell lines.
3. Research on stem cells harvested from excess IVF embryos destined for disposal.
4. Research on stem cells harvested from embryos produced solely for research by uniting an egg and sperm.
5. Research on stem cells harvested from embryos produced solely for research by SCNT.
6. Research on stem cells harvested from embryos produced and genetically modified specifically for this purpose.
7. Research on stem cells harvested from blastocysts produced by SCNT using nonhuman oocytes.
8. Research on stem cells harvested from blastocysts produced by SCNT using human oocytes.

There are, of course, ethical issues, in fact, hotspots involved in each of these options. These concerns involve questions about the beginning of life and personhood, the source of stems cells for research, the ends to be achieved, how research is funded and what oversight is needed. The seriousness of these issues and the potential benefits of stem cell research call us to engage in open and honest discussion. Oversight is clearly needed, but it can make a huge difference where we draw the line (Fig. 1).
The promise of stem cell research ranges from identifying drug targets and testing potential therapies and studying cell differentiation (the better to understand, prevent, and treat birth defects) to culturing tissues and cells for transplantation (potentially to help patients with Parkinson’s, Alzheimer’s, heart disease, diabetes, or other conditions). The most interesting outlier among these potential outcomes is the question box (Fig.2) — the unexpected consequences — whether for good or ill, that may unfold as the research proceeds.

Gary Pettett, MD, a program associate at the Center for Practical Bioethics, is chair of the Pediatric Institutional Review Board at Children’s Mercy Hospital, Kansas City, Missouri. He is also a senior advisor to the E. Grey Dimond Program in international medicine and codirector of the history of medicine course at the University of Kansas City–Missouri School of Medicine.

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on demand? In effect, cloning for biomedical research on devastating diseases would put one on a slippery slope.

As one of its by-products, such research will eventually yield knowledge that will make it less risky to produce cloned babies. The barrier between the two activities will break down. If, however, one has powerful reasons for not cloning babies beyond the temporary obstacle that it cannot be done safely, then one might feel free to consider on its own merits or demerits the proposal to fund biomedical research on preimplanted embryos.

In my judgment, our society should oppose the practice of cloning children not simply because we cannot safely cross the border into that country, but because it creates a country into which we should not enter.

To cite but one feature of the landscape: cloning kids would entail a profound alteration in human parenting. Parenting asks each of us to be open to the genetically strange. That’s part of accepting love. Every one of us is the not wholly anticipatable mix of two genetically different human beings. And parenting requires opening ourselves up acceptingly to what is received. But cloning converts begetting into manufacturing. It converts a gift into an anticipatable product, a product which we fully intend to be a genetic replica of ourselves.

Cloning for Biomedical Research

On the second issue — cloning for biomedical research — the Council divided ten to seven. A majority of ten voted in favor of a four-year moratorium on such research. This majority included perhaps five to seven who would have preferred an outright ban but who endorsed the fallback position of a moratorium in order to secure their place in a majority.

A minority of seven favored proceeding with the research but only with strict regulations governing its conduct. That minority may have included one member not strongly attached to the necessity for regulations.

I will discuss the substantive arguments first and then some tactical considerations.

Vitalism and Beyond

First, the Council hoped to deepen the discussion of cloning for biomedical research beyond a head-on collision between two forms of vitalism. Coming from one direction, those who are pro-life would ban cloning for biomedical research on the grounds that it requires the destruction of nascent human life, a preimplanted embryo, which is nothing less than “one of us.” Coming from the opposite direction, advocates for such research hold that a ban would delay or block the possible development of therapies that might save human lives. Hence, vitalists argue against vitalists.

To expand the debate beyond vitalism, the Council’s document emphasized that the embryo is a human life at its most help-
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less and vulnerable; therefore, if anything, it
should make the strongest of claims upon us.
It should trump any and all other consider-
ations. To quote from the document:

In fact, precisely because the embryo seems to amount to so little, our responsibility to respect and protect its life correspondingly increases. As Hans Jonas once remarked, a true humanism would recognize the “inflexible principle that utter helplessness demands utter protection.”

Thus, we move beyond vitalism to appeal to what we owe morally to ourselves as a society; that is, not to be the kind of people who seize upon vulnerable human life to serve other human lives. The appeal is not simply to life but to a way of living — under the constraints of the principle of equality and the principle of protection extended to the helpless.

“This perspective overlooks the many ways in which vulnerability and helplessness increase with the ascent into the neural streak, percipience, self-awareness, other awareness and the rest.”

This argument struck me as powerful, yet on just this point — that utter helplessness demands utter protection — I found myself parting company with the advocates of a ban. They seemed to assume a scale running from the weakest, the most vulnerable and invulnerable. They then placed the blastocyst, the preimplanted embryo, at the bottom of the scale to which all other considerations must yield.

The argument for a ban seems to place the preimplanted embryo at the bottom of the scale, totally weak, totally helpless, and thus places it morally at the top of the scale — prohibiting any biomedical research that would entail the destruction of the preimplanted embryo. This perspective overlooks the many ways in which vulnerability and helplessness increase with the ascent into the neural streak, percipience, self-awareness, other awareness, and the rest. The ascent into the acquisition of human powers in its own way increases vulnerability and calls for relief and protection. In a sense, the more conscious a person becomes, the more vulnerable he or she is to pain, apprehension, and anxiety.

In expanding beyond vitalism the arguments in favor of cloning, the Council needed to do more than list the diseases that would serve as targets for treatment. A brief recital of the diseases — Parkinson’s, Alzheimer’s, spinal cord injuries, diabetes, and others — does not adequately express the forfeit and loss beyond life itself imposed by such diseases and the warrants for undertaking such research with appropriate regulations. Chronic pain, severe impairments, and debilitating diseases can distract, distort, diminish, and isolate not only patients but their families.

The example of exceptional persons who heroically bear great burdens should not blind us to the powerful warrants for developing therapy beyond mere vitalism. Humanly considered, preventing early death promises more than the mere lengthening of life. Premature death can shadow the life of the patient long before it arrives; its advent can impoverish and devastate families; rearrange and derange hope and cast a chill on the lives of survivors. Medical research can serve a bundle of values that transcend the mere extension of life.

Permitting and Regulating Biomedical Research

The issue of the moral status of the preimplanted embryo figured large in the Council’s deliberations. Is the preimplanted embryo “one of us”? That question surfaced over and over again in the debates. Three answers emerged. Some scientists (though I think only one of the five practicing scientists on the Council) would deny a link between the microscopic material in a petri dish and “one of us” and therefore justify unregulated research. We can do with it what we will. It’s no big deal. A second group — proponents of the ban — would define “one of us” broadly to include the preimplanted embryo.

“In my judgment, our society should oppose the practice of cloning children not simply because we cannot safely cross the border into that country but because it creates a country into which we should not enter.”

Therefore they would refuse to clone or kill a preimplanted embryo in research, even though successful research might offer relief to patients who are seriously impaired or face premature death. Both parties seek to escape the stigma (and perhaps the regulatory burdens) that might accompany therapy that owes something to “one of us.”

There is, however, a third way of thinking about the preimplanted embryo that does not rely on the inclusionary/exclusionary language of “one of us.” The preimplanted embryo occupies an intermediate status. It is neither a full human being nor is it a mere thing. This insistence on the intermediate status of the embryo moves in two directions: it permits research, but it also requires regulation.

The status of the preimplanted embryo permits research because the embryo does not hold such a claim on us as to ban a line of scientific inquiry that might thwart grave human suffering and premature death. However, the source of this research in the human also argues for the necessity of regulations. The preimplanted embryo is more than a yard lot of building materials; it is a cluster of cells that, if implanted,
nourished, and protected, will move toward being a human life. Therefore, in removing it through research from the circle of life, we cannot remove it from the circle of human indebtedness.

This position has powerful implications for the content as well as the necessity of regulations. Most discussion of regulations has centered on how we conduct the research. (For example, we need regulations and institutional arrangements to protect women as the source of eggs, to limit research to a fourteen day period before the onset of the neural streak, to license and monitor procedures, and to extend the scope of regulations to private as well as publicly funded projects.) However, the acceptance of a human source for the conduct of this research has equally powerful consequences for providing universal access to the results and benefits of this research.

Gratefully accepting a human embryo source that makes possible the conduct of biomedical research requires the most inclusive destination of its fruits in the common good. The element of gift in origin requires common access to benefits in the distribution of knowledge and therapies. It does not permit the capture of knowledge and benefits by venture capitalists alone in such a way as to thwart their eventual dissemination to all in need.

Toward a Richer Bioethics

Clearly, the issue of distributive justice concerning access to the good of healthcare has not figured on the agenda of this council. By implication, the use of preimplanted embryos in research rises to the level of a moral issue; but the question of whether the beneficial products of that research reach all those in need remains a merely political issue. However, the question of universal access to care cannot be ignored. Otherwise, the term “bioethics” diminishes in meaning.

For all practical purposes, the opponents of stem cell research have tended to marginalize issues of distributive justice by concentrating all their firepower in favor of a ban/moratorium on federal funding of research while not extending that ban/moratorium to privately funded research. They find particularly abhorrent the prospect that their own tax dollars would fund research that would destroy a nascent human life. In effect, by not extending a ban/moratorium to privately funded research, they have entered into a kind of compromise with a pluralistic society. Do not compel me through taxes, and I will not seek to compel others through a ban on private ventures. Players in the private sector can engage in such research if they so choose.

However, the moral tidiness of this combination of a federal ban, plus a de facto unregulated marketplace, is illusory. The absence of regulations governing the marketplace will expose society to a parade of horribles in stem cell research: in the use of women for the extraction of eggs, in the blurring of time limits on permissible research, and in the housing of embryos in human and nonhuman uteri. Further, by totally privatizing ownership, unregulated research in the marketplace will weaken “an obligation to share justly the benefits accruing from such research with all in need.” Finally, this arrangement will overlook the eventual complicity in embryonic stem cell research, even of those who feel that they have disengaged themselves from it morally by banning the use of federal dollars, their own tax dollars, in funding it.

For these varied reasons, I favored research on preimplanted embryonic stem cells with a strict set of regulations governing both federal and privately funded inquiry.

William F. May, PhD, professor of ethics, emeritus, and founder of the Cary M. Maguire Center for Ethics and Public Responsibility, is a fellow of the Institute for Practical Ethics and Public Life at the University of Virginia. From 2002 to 2004, he served as a member of the President’s Council on Bioethics. Among his books are The Physician’s Covenant (1983), The Patient’s Ordeal (1991), and The Beleaguered Rulers (2001). Visit www.practicalbioethics.org for the full text of this presentation.
Mr. and Mrs. S are a successful young professional couple. They have two sons: J, who is five years old, and M, who is two. Nine months ago J was diagnosed with Acute Lymphocytic Leukemia (ALL). He responded well to his initial chemotherapy and quickly went into remission. Last week, however, J’s oncologist detected the early signs of a relapse of his leukemia. Although secondary therapy is available, it involves drugs with significantly higher toxicity and much less certainty of a second remission. The oncologist has also told Mr. and Mrs. S about a research study that requires a bone marrow transplant and a new (experimental) drug that will aid engraftment and deter rejection.

J’s two-year old brother, M, is the most histocompatible donor for the transplant. To donate, M would undergo a rigorous preparatory process followed by one (or more) collections of bone marrow. He will certainly have some discomfort, and there is some risk from the process.

As desperately as they want the best treatment (and outcome) for J, Mr. and Mrs. S also feel conflicted about using M as the donor especially since he may not understand exactly why he is undergoing this procedure. Mr. S wonders if M is being used as a “guinea pig.” Can Mr. and Mrs. S resolve their conflict? What if J responds poorly to the transplant and dies? Will M feel that he contributed to his brother’s death? If Mr. and Mrs. S elect not to allow M to donate marrow, will he later feel that he was cheated of an attempt to save his brother?

Gary Pettett, MD, and Rosemary Flanigan, PhD, are program associates at the Center for Practical Bioethics.

Questions for discussion

1. Give an argument justifying the use of M’s bone marrow. Give an argument against it.

2. What do we mean when we use something or someone as a “guinea pig”? Could the intention in this case be such that it excludes M from being so considered, even as he contributes bone marrow?

3. There is a social dimension to being human; there are even stronger social dimensions to being part of a family. What is ethically permitted in this case? What might limit us from doing all that is ethically permitted in this case?

4. Role play talking to M (age two) before any removal of bone marrow. Role play talking to M (age seven) if and when J dies, even though M twice donated bone marrow to J.

5. Return to question 1. Which is the stronger of your two arguments? Why?

For further discussion

1. How do the ethical issues in this case relate to the “ethical hotspots” in stem cell research? (see the primer, pages 6-7)

2. How do they relate to William May’s discussion of a “richer bioethics”?

Please discuss this case with your students, colleagues, hospital or other ethics committees. You are also invited to email your comments and additional queries to the Center for Practical Bioethics at bioethic@practicalbioethics.org. Members of the Center who have not yet joined our online discussion group should send their email address and request to participate to bioethic@practicalbioethics.org. Further commentary on this case will be available on www.practicalbioethics.org in February 2005.