Immortality or Abundance: a Stem Cell Conundrum

By Karen Lebacqz

The first time I heard the term "immortal" applied to stem cells, I cringed. "Immortal," I thought, should be reserved for God – or at least, not bandied about carelessly. While I support stem cell research,[1] I do not think that cells and tissues should be called immortal, even if they can survive for some generations in tissue culture. Happily, some scientists concur: "The use of the word 'immortality' to describe the property of cells being able to replicate without limit is unfortunate," writes Michael West.[2] Nonetheless, stem cells have been linked from the beginning with dreams of immortality.

Among those dreams is the possibility of immortal human life. As a recent review of the ELCA statement on "Genetics, Faith and Responsibility" declares: "Genetic science extends human powers over the fundamental processes of life in unprecedented and qualitatively different ways."[3] I agree: when and if stem cell technologies become proven treatments for human diseases, they will raise in exponential fashion some difficult ethical questions, including the question of whether we should strive for immortality. Such striving raises crucial questions of justice. It is no mistake that the ELCA takes justice to be one of the fundamental moral imperatives to apply to stem cell technologies.[4] Many years ago the Geron Ethics Advisory Board also declared "global justice" one of the ethical criteria to be applied.[5] The question I address here is a question of global justice—one that I shall frame in the language of immortality vs. abundance.

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[1] See Ted Peters, Karen Lebacqz, and Gaymon Bennett, *Sacred Cells? Why Christians Should Support Stem Cell Research* (NY: Roman and Littlefield, 2008).

[2] Michael D. West, *The Immortal Cell: One Scientist's Quest to Solve the Mystery of Human Aging* (NY: Doubleday, 2003), 128. West describes how he squirmed when people asked him whether the discovery of the enzyme telomerase that lengthens cell life would make people immortal. But he also describes his search for the dream of the ancients – an immortal cell, which he calls "zoe" as compared to "bios."

[3] Roger A. Willer, "Respect and Promote the Community of Life with Justice and Wisdom," *Theology and Science v.* 10, no.2, May 2012:125-139 at 130.

[4] Willer, "Respect and Promote…" 128. I would note that the Geron Ethics Advisory Board, in what may be the first ethical analysis of human embryonic stem cell research, called for attention to global justice as one of the criteria for ethical conduct of such research. [GET]

[5]Geron Ethics Advisory Board (Karen Lebacqz, chair), "Research with Human Embryonic Stem Cells: Ethical Considerations," in *The Stem Cell Controversy: Debating the Issues,* ed. Michael Ruse and Christopher A. Pynes (Amherst, NY: Prometheus Books, 2003), 108.

Here is the issue in a nutshell: some stem cell treatments will offer the possibility of better *quality of life* for many, particularly perhaps in old age. We might call such better quality of life "abundance." Other stem cell interventions would very likely *extend* life, perhaps even indefinitely. Such extension we might term "immortality." Does justice give a nod to preferring one of these over the other? [6] Is the extension of life indefinitely a good thing? If humans *could* be made 'immortal' and death *could* be 'defeated,' is that a goal we should seek? Is there no longer a 'time to die,' as the writer of Ecclesiastes put it?

In a recent essay, Yuval Levin suggests that both modern science and modern political philosophy have put the avoidance of pain and the prevention of death at the forefront of our public life.[7] The net result, argues Levin, is that we spend more and more of our public goods on the search for health and the postponement or rejection of death. Our health care costs rise astronomically – far faster than our general rate of inflation. Levin worries that this trend will ultimately bankrupt us as a society, especially if we permit the pursuit of health and defeat of death to trump all other social goods.

Levin's answer to this problem is to propose that decisions about health care priorities should *not* be channeled through our political institutions but rather through the market. I disagree. Markets are not good at dealing with questions of justice. Long ago, Gene Outka

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[6] In a previous essay, I posed the question in very personal terms: My father had macular degeneration. Living alone after my mother's death, loss of eyesight was a tremendous burden to him. He could no longer drive, watch television, or read. He could not see to pay his bills or file his paperwork. He could not get easily to the grocery store, and once there, he could not distinguish which items he wanted: one day his coffee was in a tin with a new color; not being able to read, he was looking for the old color, and he simply could not find the coffee he wanted. A stubborn and independent man who had been a leader in his scientific field (pioneering on the Stanford Linear Accelerator), my father felt keenly the loss of independence that accompanied his failing eyesight. Stem cell therapies might have enabled my father to keep his sight.[6] What a difference that would have made to his quality of life. Restoring his sight would not likely have extended his life span, but would have allowed him to retain his independence and with it, many of the things that gave him joy and dignity. It would have given him a life of some abundance. My mother, on the other hand, died of congestive heart failure. Suppose a stem cell therapy had been available for her. It might have improved her quality of life – allowing her to breathe more easily, for example – but it would also have extended her life. I loved my mother and I would have kept her for many more years, but she was already 94 when she died.[6] Would stem cell therapies have made it unnecessary for her to die at all? See Karen Lebacqz, "Stem Cells and Aging: Quality and Quantity of Life in an Unjust World" in *Aging, Biotechnology, and the Future,* ed. Catherine Y. Read, et.al., (Baltimore: The Johns Hopkins Press, 2008), 79-85.

[7] Yuval Levin, "Putting Health in Perspective," *The New Atlantis,* Summer 2012: 23-36. I would have reversed the adjectives: we have put the prevention of pain and the avoidance of death at the forefront. However, the point remains basically the same.

argued persuasively that the market is ill-suited to provide justice in health care.[8] More recently, Martha Nussbaum has shown that desires or preferences—the foundation of markets-- are an inadequate basis for justice.[9] What we need is specific analysis of the demands of justice and how they might impact our desires to extend life and increase abundance.[10]

What does justice require when it comes to a choice between "abundance" and "immortality"? There is little in recent justice literature that would help to resolve this question, but some earlier efforts to define justice in the health care arena may be helpful. In *Benchmarks of Fairness for Health Care Reform,* Norman Daniels and his colleagues began with the recognition that "equal opportunity" is a basic value in American society.[11] To the extent that Americans believe in fairness, we believe in a 'level playing field' and thus in removing obstacles to such a field.[12] Ill health is one of the obstacles that would undermine people's fair opportunity to compete or to perform. Health care is intended to keep us functioning as normally as possible. It thus contributes to protecting our opportunities for "life, liberty, and the pursuit of happiness." To the extent possible, then, we should not allow people's prospects in life to be governed by correctable or irrelevant differences, such as illness or injury. Thus, Daniels and colleagues argued that one of the 'benchmarks' of justice for health care is providing the care that permits people to stay close to normal functioning, recognizing full well that there will still be enormous differences in people's capabilities. Importantly, however, they set a restriction: "…the uses of health care that most of us believe we are obliged to make available to others are uses that maintain or restore normal functioning, not simply any use that enhances our welfare."[13] The concept of restoration to "normal" functioning, then, might suggest that

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[8] Gene Outka, "Social Justice and Equal Access to Health Care," in *On Moral Medicine: Theological Perspectives in Medical Ethics,* eds. Stephen E. Lammers and Allen Verhey (Grand Rapids: William B. Eerdmans, 1987), 632-643.

[9] Martha C. Nussbaum, *Women and Human Development* (Cambridge U., 2000), Chapter 2.

[10] I need to clarify that I am *not* arguing for 'quality of life' vs. 'sanctity of life.' I assume that all life is valuable. With everything else equal, I would gladly extend human life for all. But all else is not equal around the world, and this leads me to question whether we should seek 'immortality' or whether it is better to seek 'abundance' – good quality of life for all. I am not, therefore, arguing that some life is "not worth living" or "has no value," as some advocates of quality of life propose. See Louis P. Pojman, *Life and Death: Grappling with the Moral Dilemmas of Our Time* (Belmont, CA: Wadsworth, 2000), 59f.

[11] Norman Daniels, Donald W. Light, and Ronald L. Caplan, *Benchmarks of Fairness for Health Care Reform* (NY: Oxford, 1996)

[12] John Rawls' massive *A Theory of Justice* also begins with the premise that people begin life in unequal situations and that justice requires redressing the impact of those inequalities.

[13] Daniels, op.cit., 21.

emphasis be given to stem cell therapies that remove suffering and restore sight or renal function, for instance, but not to those that would *extend* life beyond the normal.

A similar view seems to be proffered by David Thomasma.[14] The elderly, he argues, are entitled to support for their past contributions. But since they have already been given the opportunity to compete for goods and resources, at this stage they are entitled only to enough care to bring about comfort and, if possible, restoration of health. Expensive treatments that lead to only minor benefits would be ruled out. For both Daniels and Thomasma, then, notions of 'equal opportunity' support improvements in quality of life for the elderly but not extension of life *per se*.

The concept of a 'normal' life span and the proposal to limit care in later life to comfort care also figured heavily in Daniel Callahan's approach in *Setting Limits.*[15] Callahan was an early and bold crusader for the idea that we must change our approach to medicine and focus less on defeating death and more on relieving suffering. Writing 25 years ago – before Dolly the sheep, before human embryonic stem cells, before the age of regenerative medicine—Callahan's concern was simple: society is aging, the aged use many medical resources, and we need to address the justice issues created by these trends. Callahan argued bluntly that medicine "should give up its relentless drive to extend the life of the aged…."[16] Relieving suffering and improving physical and mental quality of life were goals that Callahan supported for medicine; the simple prolongation of life was not: "I want to argue that medicine should be used not for the further extension of the life of the aged, but only for the full achievement of a natural and fitting life span and thereafter for the relief of suffering."[17] However compelling longer life might be, he urged, it is not a goal that the aged should seek.

Callahan's argument was premised on the idea that the aged have health care needs that are costly. Governments cannot be expected to bear unrestrained the growing costs of health care for the elderly. In the face of limited resources, health care for the aged would inevitably bring "some degree of harm" to other groups.[18] Although Callahan used the term "justice" sparingly, his basic argument is that justice requires setting limits on health care for the aged in order to provide other social goods. He argued for a "natural life span," which he set at about 80 years,[19]

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[14] David C. Thomasma, "Ethical Judgments of Quality of Life in the Care of the Aged," in *Quality of Life: The New Medical Dilemma,* eds. James J. Walter and Thomas A. Shannon (NY: Paulist Press, 1990), 227-231.

[15] Daniel Callahan, *Setting Limits: Medical Goals in an Aging Society* (NY: Simon and Schuster, 1987).

[16] Callahan, 25.

[17] Callahan, 53.

[18] Callahan, 59.

[19] Callahan, 148.

to be followed by a "tolerable death."[20] While a longer life might be enjoyable for many, Callahan argued, there is no necessary *right* to a long life, and failure to secure it is not a self-evident evil.[21] In short, medicine has two legitimate goals: enabling people to live a "natural life span," and beyond that point, relieving suffering but not trying to prolong life. Relief of suffering would include control of pain and efforts to promote physical functioning, mental alertness, and emotional stability.[22]

For Callahan, "high-technology medicine" is one important place to begin to put the reins on the costs of health care.[23] "No technology," he argued, "should be developed or applied to the elderly that does not promise great and inexpensive improvement in the quality of their lives, no matter how promising for life extension."[24] His model of a technology that should not be used for the elderly was dialysis: it offers only moderate lengthening of life and very poor quality of life. Recognizing that many new technologies are developed with the young in mind, but then are used for the elderly, Callahan cautioned against the lure of technology. Five chronic conditions cause suffering among the elderly: dementia, urinary incontinence, hearing impairment, osteoporosis, and osteoarthritis.[25] These conditions should be the focus of research efforts, Callahan argued.

If we could simply apply Callahan's reasoning to stem cells, these five chronic conditions would give us a good basis for seeing where priorities should go in stem cell research. However, such a simple application may be problematic. Callahan's arguments against prolongation of life were based in part on the increasing costs of health care as people live longer and are subject to chronic ill health. [26] These predictions and premises have been on target, as Levin's more recent analysis suggests. But the promise of stem cell technologies might be precisely to eradicate those chronic conditions that raise health care costs. If stem cell therapies could 'cure' illnesses that plague the elderly (such as diabetes, COPD, heart disease), would Callahan's argument against

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[20] A "tolerable death" would be one at the stage of life where one's possibilities have, on the whole, been accomplished, one's moral obligations to children and others have been discharged, and one's death would not offend public sensibility [in the way that the death of a child does, for example]. See Callahan, 66. Further, a tolerable death should not be marked by unbearable or degrading pain. Callahan, 72.

[21] Callahan, 74.

[22] Callahan, 79. Two societal shifts would be necessary to accomplish Callahan's proposal: first, a change in the way we view the purposes of medicine, and second, a change in our understanding of the purposes of old age.

[23] Callahan, 142.

[24] Callahan, 143.

[25] Callahan, 149. These five conditions were identified by the Office of Technology Assessment.

[26] Callahan, 117: "the price of an extended life span for the elderly is an increase in chronic illness."

prolongation of life collapse? To some extent, *cost* is the major factor in his argument.[27] Stem cell treatments at present would be very expensive and would definitely fit his definition of exotic new technologies that should not be applied to extending life among the elderly; however, eventually the costs of stem cell interventions might be reduced, and then it is not clear that Callahan's argument would still apply.

A second problem in applying earlier analyses such as Callahan's or Daniels' is that they focused on assessing justice requirements *within* US society. While even this limited application of justice is a daunting task, I want to extend the scope of justice to the international arena. From a Christian perspective, I argue that justice *must* be international: all people around the world are God's "children" and therefore must be considered when we ask what justice requires.[28] In pluralistic America, however, I cannot presume that everyone shares my Christian convictions. I therefore draw on other thinkers who have struggled with the question of whether justice can be done on an international or "world-citizen" basis.[29]

One early attempt to tackle 'quality of life' arguments in the international arena was that of William Aiken.[30] Starting with the premise that we are social and moral creatures by nature, Aiken argued that to have a 'good life' we must build a moral community. To build a moral community, we must insure a distribution of goods sufficient to guarantee a minimal level of quality of life for all. Ensuring this minimal quality of life for all, he suggested, should take priority over having a life of affluence for some. Importantly, Aiken linked his view very specifically to international justice: protection of individual happiness at the cost of neglecting the minimal requirements for all is "misguided," he argued. If quality of life is defined not by

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[27] Callahan notes that "A sharp line between relieving suffering and extending life will be on occasion difficult to draw…." 173. When that is the case, he argues, "…under no circumstance would it be acceptable to fail to relieve suffering…." He also notes that the bulk of Medicare reimbursements are *not,* as some people think, for exotic or intensive care at the very end of life, but are for the ordinary diseases that tend to accompany old age. 131.While there has been a social shift toward the acceptance of POLST forms and other means of refusing treatment at the very end of life, this does not address the problem of those who are "declining but not yet imminently dying." 133

[28] In *Spheres of Justice: A Defense of Pluralism and Equality,* (NY: Basic Books, 1983), Michael Walzer argued that membership in a community is a crucial 'good' to be distributed, as it is the basis for access to many other goods. From a Christian perspective, I reject the idea that justice is limited to national boundaries and citizenship.

[29] See, for example, Thomas W. Pogge, *Global Justice* (Malden, MA: Blackwell, 2001); Will Kymlicka, *Multicultural Citizenship* (NY: Oxford University Press, 1996); Darrel Moellendorf, *Cosmopolitan Justice* (Boulder, CO: Westview press, 2002); Martha C. Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (Cambridge, MA: Harvard University press, 2006); David Miller and Sohail H. Hashimi, eds., *Boundaries and Justice: Diverse Ethical Perspectives* (Princeton, NJ: Princeton University Press, 2001).

[30] William Aiken, "The Quality of Life," in *Quality of Life: The New Medical Dilemma,* eds. James J. Walter and Thomas A. Shannon (NY: Paulist Press, 1990), 17-25.

affluence but rather by the recognition of our social nature and hence, of the need for justice in distribution, then concerns for quality of life give an impetus to providing the minimum necessary for all people around the world. Providing that minimum takes precedence over the desires of the rich.

Along somewhat similar lines, more recently, Iris Marion Young argues for a "social connection" model of justice.[31] However, her argument is not essentialist, as was Aiken's; it is not based on assumptions about our human nature. Rather, it is based on historical and social realities. Some injustices are 'structural,' Young contends. That is, they are "produced and reproduced by thousands or millions of persons usually acting within institutional rules and according to practices that most people regard as morally acceptable."[32] The contributions of any particular person to the injustice are generally indirect, collective, and cumulative. Thus, models of legal responsibility that require a clear causal link between one's actions and the unjust outcome do not easily apply; nor do models for ethical responsibility that rest on assumptions about evil intent. No one may *intend* to do evil, but nonetheless injustice can result from the workings of what we often call "the system." It need not be our *fault* that something is unjust in order for us to have *responsibility* for doing something about that injustice: "To the extent that we participate in the ongoing operations of a society in which injustice occurs, we ought to be held responsible."[33] This notion of responsibility, Young stresses, is forward-looking: it requires us to take steps to correct the injustice without assigning guilt or blame for past injustices or deeds. "Our forward-looking responsibility consists in changing the institutions and processes so that their outcomes will be less unjust."[34]

Some philosophers have argued that duties of justice hold only for people with membership in a nation or group, but Young contends that many such structural injustices extend beyond nation-state boundaries. If the basis for our having responsibility toward rectifying injustices consists in the fact that we participate by our actions in the operation of institutions that produce injustice, then we can be responsible across borders.[35] She notes that ongoing economic processes of production, investment, and trade connect people in diverse regions of the world, people move across borders, and increasingly our modes of communication and

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[31] Iris Marion Young, *Responsibility for Justice* (NY: Oxford, 2011). This book was published posthumously.

[32] Young, 95.

[33] Young, 104.

[34] Young, 111.

[35] Young, 123. Her example is sweatshops, where consumers of clothing here in the United States do not directly 'cause' the unjust working conditions, but by buying the clothing produced there, we become part of the systemic injustices.

expression are global in scope. These 'dense' global relationships have led many to believe that justice today must be international in scope. Indeed, Pogge argues that the global order is a significant cause of the severe poverty in which so many people live, and this fact alone raises issues of justice across boundries. [36] If agents who contribute to or participate in structural processes that produce injustice share responsibility for remedying that injustice, then all of us are implicated.[37] Indeed, Young argues that those of us who are relatively privileged within these structural processes have greater responsibility than others to undermine injustice and work for justice.

What, then, would be the implications of such a view of connectional, international justice for issues in stem cell research? The overarching principle of justice can be articulated in some middle-level axioms.[38] I propose here that those axioms would include: (1) a 'normal life span,' globally calculated; (2) an 'option for the poor; and hence, (3) a focus on 'abundance' rather than immortality.

Starting with Callahan and Daniels, we might begin with the concept of a "natural life span." Of course, trying to divide stem cell treatments into those that extend life and those that merely improve the quality of life is rather arbitrary. At the December, 2012, BIT 5th Annual Congress of Regenerative Medicine and Stem Cells in Guangzhou, China, a doctor from India described her work with adolescents suffering from muscular dystrophy. Following the injection of stem cells into their muscles, children and youth who had been in wheelchairs were enabled to stand and sometimes to walk. The impact on their quality of life is immediately apparent. But it is also likely that they will live longer because of the treatments. None of us would object to giving those adolescents longer life.[39] We have a sense of a normal life span that certainly includes the possibility of growing into adulthood at least, if not being able to see one's children grow. Diseases such as childhood (type 1) diabetes or progeria (in which children age prematurely and die very young) seem to cut life off or make it shorter than it 'should' be. If we could cure those diseases or others that currently kill many in their thirties or forties, most of us would applaud. Stem cell therapies to prolong life into adulthood are likely to garner great public support, and in my view should do so. The concept of a normal life span helps to explain why we

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[36] Thomas W. Pogge, "Priorities of Global Justice," in *Global Justice,* ed. Thomas W. Pogge, 6-23

[37] Young, 142.

[38] For instance, in the arena of climate justice, Martin-Schramm proposes four norms: sustainability, sufficiency, solidarity, and participation. See James B. Martin-Schramm, *Climate Justice: Ethics, Energy, and Public Policy* (Minneapolis: Fortress, 2010).

[39] That doesn't mean we would have no objections to some aspects of the treatment – the source of stem cells, the adequacy of 'controls' in clinical trials, etc.

do not think it wrong to spend a great of money and effort on children suffering from cancer, for example.

At the same time, we must be careful in assessing normal life span. Life spans differ greatly from culture to culture, region to region. Thirty or forty years is a normal life span in many parts of the world. Is it fair that we live twice as long in the West as people do in other parts of the world? Justice might require supporting life-extending stem cell therapies in some parts of the globe or for some diseases, but not in other parts or for other diseases. Those who are in poor health have little chance to achieve a natural life span. It would be unfair, Callahan argued, if they were denied an opportunity to live to that point, especially if others are being assisted to live well beyond that point.[40] Those in good health have already had a natural advantage; restricting their care would not be as unfair as restricting care for the less fortunate.

If we applied this standard on an international basis, I suggest that we might have to revise Callahan's "normal life span" downward, since 80 years is not a normal span in most of the world today. The net result might be that we focus our energies in research on those diseases that cause premature death in so much of the world. Perhaps we would also have to say that those of us over the age of 65 should not get health care that prolongs our life, but only care that reduces our suffering. Should my cancer return, for example, I might not qualify for life-sustaining interventions such as chemotherapy; comfort care would still be appropriate.[41]

Further, from a Christian perspective, justice requires a 'preferential option for the poor.'[42] This affirmation is long-standing and will mean two things at a minimum. First, as suggested above, the 'normal life span' should be calculated based not on the middle class or those well off in modern western society, but on life spans around the world, including and emphasizing life spans of the poor. Second, any proposed stem cell research must meet the burden of demonstrating that it will first and foremost help those who are least well off. This could be achieved by targeting diseases or conditions that are disproportionately represented among the poor, or by showing that a particular stem cell therapy would significantly improve the condition of the poor. For example, stem cell interventions that enable people to walk would also enable them more easily to earn a living in most parts of the world.

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[40] Callahan, 156.

[41] Indeed, since I was diagnosed with cancer at age 64, it is somewhat questionable whether I should have received chemotherapy at all! I am grateful for my ongoing life, but I am mindful of the fact that it is only because I am privileged and relatively wealthy that I was able to secure all the treatment that I received.

[42] This understanding of the requirements of justice from a biblical perspective is now very well entrenched in modern theology. See, for instance, texts as diverse as James B. Martin-Schramm, *Climate Justice: Ethics, Energy, and Public Policy* (Minneapolis: Fortress, 2010), 27; Darrin W. Snyder Belousek, *Atonement, justice, and Peace: The Message of the Cross and the Mission of the Church* (Grand Rapids: William B. Eerdmans, 2012), 473.

Putting both of these criteria together then leads to the third axiom: a focus on abundance rather than immortality. Modern, liberal society stresses freedom and choice, positing that we are free, 'choosing' persons whose only obligations are acquired by choice. Numerous critics have pointed out that such a conception is not only empty, but untrue. The liberal account of obligations is too thin.[43] All of our obligations are not simply the product of our will. We do not choose our parents, and yet we still have obligations to them. Like Young and Pogge, Sandel argues that there are obligations of solidarity that involve moral responsibilities not based on consent but owed to those with whom we share a certain history.[44] Most of Sandel's examples suggest that solidarity is to one's fellow countrymen; like Rawls and Daniels, he focuses largely on justice within a nation or on actions that protect national integrity. My own notion of 'solidarity' is broader.[45] However, where I agree with Sandel is this: there are obligations that are not 'chosen' but come with being a member of a community. In my case, being a member of the Christian community places obligations on me not simply to other *Americans* but to God's children all around the world – in other words, to all people, regardless of nation, race, or religion. Thus, I must stand 'in solidarity' with those *outside* my nation for precisely the kinds of reasons that Sandel thinks I must stand in solidarity with those *inside* it. If we are to take seriously the *common* good, I would argue, that good must be broader than our national boundaries, for all the reasons that Young and Pogge enumerate: our lives are bound up with those of distant peoples around the globe; what we do affects their well-being; and therefore they are part of the community to whom justice is owed.

Is there any hope that we would in fact think about stem cell research in these terms? In order to set priorities for stem cell research, we must have some control over that research. Ironically, because the federal government did not fund embryonic stem cell research, it also could set few priorities for that research. However, the discovery of IPs cells – induced pluripotent stem cells not derived from an embryo – means that government funding will proceed. Public monies are often involved, through NIH grants. Such funding opens up possibilities for setting priorities in accord with some concerns for justice. Unfortunately, the shift away from embryonic stem cells has tended to make commentators think that all ethical questions regarding stem cells have simply disappeared: if no embryos are destroyed, no ethical issues remain.[46] Justice questions get ignored. I hope I have shown here that some serious ethical

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[43] Michael J. Sandel, *Justice: What's the Right Thing to Do?* (NY: Farrar, Straus, and Giroux, 2009), 224.

[44] Sandel, 225. Such obligations can include some based on religious affiliation, such as Israel's attempted rescue of Ethiopian Jews who had sought refuge from famine in 1984 by fleeing to Sudan. Sandel, 227.

[4545] I am closer to Iris Marion Young's definition of solidarity as a relationship among separate and even dissimilar actors who decide to stand together and to be 'for' one another. Young, op.cit., 120.

[46] See, for example, the recent report of the Witherspoon Council on Ethics and the Integrity of Science, *The New Atlantis,* v.37, Fall, 2012.

issues remain on the horizon for stem cell research and treatment, even when no embryos are involved.[47]

At the end of his book on justice, Sandel asks whether there is any way forward. Noting that Robert F. Kennedy did not hesitate to judge the complacency he saw in America and that Barack Obama also has called for a public life of larger purpose than simple satisfaction of desires, Sandel argues for strengthening our sense of citizenship and service, limiting the spheres in which market morality operates, pushing inequality forward as a political issue, and strengthening our understanding of what it means to operate with 'respect' for each other.[48] To those suggestions I would add: re-emphasizing what our Biblical heritage requires-- that justice roll down like a mighty stream, even if it means washing away some of our cherished dreams of immortality.

[47] There are also serious issues around stem cell tourism, but that is a topic for another paper!

[48] Sandel, *Justice,* 263-269.