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Prepared for Reps. Henry A. Waxman and Louise McIntosh Slaughter

The Administration's Distortion of Stem Cell Science

According to the National Institutes of Health, research on human embryonic stem cells offers great promise for those suffering from Parkinson's Disease, heart disease, Alzheimer's Disease, spinal cord injury, and diabetes.[1] Many social conservatives, however, are opposed to research that destroys embryonic stem cells.[2] In August 2001, President Bush banned federal funding for research on new stem cell lines. In pursuing this policy, the President and senior Administration officials have misrepresented the facts and interfered with scientific dialogue on stem cells. The Administration's ideological approach has cost the nation its leadership in a promising area of science.[3]

Misrepresenting Cell Line Availability

In a nationwide address on August 9, 2001, President Bush argued that his decision to ban research on new stem cell lines would not adversely affect patients. He claimed that "more than 60 genetically diverse stem cell lines" already existed and that research on these lines "could lead to breakthrough therapies and cures."[4] Senior White House officials, including the former head of domestic policy, subsequently stated that as many as 78 cell lines could be available.[5]

These claims are untrue. Shortly after the President's announcement, stem cell researchers immediately expressed skepticism about the number and quality of available cell lines.[6] This skepticism, while disregarded by the Administration, has proven to be justified. Some of the institutions that had stem cell lines did not have the resources to ship them safely to other labs; others had not developed the lines to the stage necessary for research.[7] Still other lines may have genetic problems.[8] In February 2004, Dr. James Battey, the head of stem cell research at NIH, wrote that the "best case scenario" today is that just 23 of these cell lines will ever be available to the research community.[9] The Administration never released Dr. Battey's assessment to the public.

Failing to Address Scientific Concerns about the President's Policy

Despite the public position of the President and his senior advisers, a scientific consensus has emerged that research on additional lines is needed. Dr. George Daley wrote in the *New England Journal of Medicine* that 128 new cell lines have been created that are ineligible for federal funding, and as a result, "many opportunities are being missed."[10] In a May 2004 letter to Congress, NIH Director Dr. Elias Zerhouni acknowledged that from "a purely scientific perspective more cell lines may well speed some areas" of research.[11] Most recently, California researchers reported the concern that all of the lines available under the President's policy could be rejected by the human body because they were grown on mouse feeder cells.[12]

THE ADMINISTRATION'S DISTORTION OF STEM CELL SCIENCE

According to Dr. Elizabeth Nabel, director of the NIH's Heart, Lung and Blood Institute, the President's policy on stem cells has cost NIH "leadership in this field."[13] Dr. Battey has concluded that as a consequence, "it is likely that there will be a movement of some of the best stem cell biologists [out of the NIH]."[14]

Interfering with Scientific Dialogue

In February 2004, Dr. Elizabeth Blackburn, a distinguished cell biologist, and Dr. William May, a prominent medical ethicist, were dismissed from the President's Council on Bioethics. Both disagreed with the President's stem cell policy. Refusing to acknowledge an ideological motive in the dismissals, a White House spokesperson stated that "we've decided to go ahead and appoint other individuals with different expertise and experience."[15]

In fact, Dr. Blackburn was fired soon after she informed Council chair Dr. Leon Kass of problems with the Council's "Monitoring Stem Cell Research" report. The report provides a generally positive assessment of the promise of research using "adult" stem cells, which some consider an alternative to research using embryonic stem cells for a variety of diseases.[16] Dr. Blackburn, a past President of the American Society for Cell Biology and a member of the National Academy of Sciences, found the report to be misleading. She took the position that the report could benefit from additional discussion of the technical barriers to research on "adult" stem cells.[17] She was promptly removed from the Council. She subsequently wrote, "the public is done a disservice when science is presented incompletely; myths are then perpetuated."[18]

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[1] National Institutes of Health, *Stem Cells: Scientific Progress and Future Research Directions* (June 2001).
[2] *See, e.g., Stem-cell Research and the Catholic Church* (online at http://www.americancatholic.org/News/StemCell/).
[3] This fact sheet is based on the report *Politics and Science in the Bush Administration* by the Minority Staff, Committee on Government Reform (Aug. 2003).
[4] White House, *Remarks by the President on Stem Cell Research* (Aug. 9, 2001) (online at www.whitehouse.gov/news/releases/2001/08/20010809-2.html).
[5] Jay Lefkowitz, *The Facts on Stem Cells*, Washington Post (Oct. 30, 2003).
[6] *Cell Lines Are Listed; Not All Can Be Used*, Boston Globe (Aug. 28, 2001).
[7] *Stem Cell Research Runs into Roadblocks*, Boston Globe (May 12, 2002).
[8] *Scientists Worry How Policy Affects Them*, San Francisco Chronicle (Aug. 10, 2001).
[9] Dr. James Battey, *Update on the Status of the 78 Eligible Entries on the NIH Human Embryonic Stem Cell Registry as of February 23, 2004* (Feb. 23, 2004).
[10] George Q. Daley, *Missed Opportunities in Embryonic Stem-Cell Research*, New England Journal of Medicine, 627–628 (Aug. 12, 2004).
[11] *Advocates See Hope in Letter on Stem Cells*, New York Times (May 15, 2004).
[12] Maria J. Martin et al., *Human Embryonic Stem Cells Express an Immunogenic Nonhuman Sialic Acid*, Nature Medicine (Jan. 30, 2005) (online at http://www.nature.com/nm/journal/vaop/ncurrent/pdf/nm1181.pdf).
[13] Letter from Elizabeth G. Nabel, M.D., Director, National Heart, Lung and Blood Institute, National Institutes of Health, to Senator Arlen Specter, Chairman, Subcommittee on Labor, Health and Human Services and Education, Senate Committee on Appropriations (Apr. 1, 2005).
[14] Letter from James F. Battey, Jr., M.D., Ph.D., Director, National Institute on Deafness and Other Communication Disorders, National Institutes of Health to Senator Arlen Specter, Chairman, Subcommittee on Labor, Health and Human Services and Education, Senate Committee on Appropriations (Apr. 1, 2005).
[15] *Bush Ejects Two from Bioethics Council*, Washington Post (Feb. 28, 2004).
[16] President's Council on Bioethics, *Monitoring Stem Cell Research* (Jan. 2004).
[17] Letter from Reps. Henry A. Waxman and Louise M. Slaughter to the President (Mar. 2, 2004).
[18] Elizabeth Blackburn and Janet Rowley, *Reason as Our Guide*, PLoS Biology (Mar. 5, 2005) (online at http://www.plosbiology.org/plosonline/?request=get-document&doi=10.1371%2Fjournal.pbio.0020116).