

Funding Embryonic Stem Cell Research: A View From the States

Embryonic stem cell research (SCR) has received increasing attention since 2001, when President George W. Bush imposed restrictions on Federal funding of the research, leaving states to determine whether, how, and to what extent they should allocate such funding. Since that time, particularly following the President's recent veto of the Stem Cell Research Enhancement Act—which would have lifted the 2001 restrictions—activity in this area has heated up in many states around the country, with the President's veto galvanizing voters and public officials on both sides of the issue. This issue of *Health Care News In-Depth* looks at the five states that provide funding for embryonic stem cell research and summarizes related activity in New York.

President George W. Bush's veto of the Stem Cell Research Enhancement Act (H.R. 810) on July 19—which would have expanded Federal funding for embryonic stem cell research (SCR)—unleashed stepped-up efforts by a number of states to fund the research themselves. Advocated by scientists and others as a promising key to developing cures for a range of life-threatening illnesses, embryonic stem cell research—and how to fund it—remains a subject of ongoing debate. Nonetheless, national and state public opinion polls indicate that a majority of U.S. voters favor public support for this research.

While Federal law does not ban embryonic stem cell research or restrict Federal funding for adult stem cell research, it does limit Federal funding for embryonic SCR to studies on stem cell lines created before Aug. 9, 2001. Individual states, however, can allocate funds to support embryonic SCR.

States With Public Funding

Five states—California, Connecticut, Illinois, Maryland, and New Jersey—provide funding for embryonic stem cell research.

California: In the fall of 2004, voters in California approved Proposition 71, the California Stem Cell Research and Cures Initiative, which called for the establishment of an entity to make grants and provide loans for stem cell

research, research facilities, and other vital research opportunities. Proposition 71 authorizes the State to sell \$3 billion in bonds to fund embryonic SCR over a 10-year period, not to exceed the sale of \$350 million per year. The State appointed the California Institute for Regenerative Medicine (CIRM) to disburse the funds, and in 2005 and 2006, the California Stem Cell Research and Cures Finance Committee approved up to \$200 million of the Proposition 71 authorized bonds.

Following the passage of Proposition 71, however, taxpayer groups and others sued to block the bonds, challenging the authority of the CIRM and raising questions about patent rights, which has tied up CIRM's major source of funding. Although the constitutionality of Proposition 71 was upheld in Alameda County Superior Court in April 2006, the decision was appealed, causing a continuing delay in fund disbursement. Then, following President Bush's veto of H.R. 810, California Governor Arnold Schwarzenegger directed the California Department of Finance to grant a \$150 million loan to the CIRM from the State's General Fund, creating the single largest outlay for embryonic SCR currently available and boosting the grant-making capacity of CIRM, whose grants had totaled only about \$12–\$14 million until then, more than tenfold. Repayment of the loan will be covered by the proceeds from

the sale of the bonds, assuming the State wins in Court, but the case is not expected to be resolved for some time.

Connecticut: Gov. Jodi Rell (R), who denounced the President's veto of H.R. 810, signed legislation in June 2005 providing \$10 million a year for 10 years to fund stem cell research. The funds are to be disbursed from the State's Tobacco Settlement Fund to the Stem Cell Research Fund, which was established by the legislation, "for grants-in-aid to eligible institutions for the purpose of conducting embryonic or human adult stem cell research."

Illinois: Gov. Rod Blagojevich (D) has bypassed the State Legislature twice to allocate State funds for embryonic SCR. In July 2005, he created the Illinois Regenerative Medicine Institute by executive order, with the funds for the Institute being made available through a line item in the State Budget giving the Public Health Department \$10 million for research. This past April, the Governor allocated those funds via 10 grants to area hospitals and universities. On July 20, on the heels of President Bush's veto of H.R. 810, Gov. Blagojevich ordered an additional \$5 million in existing State funds to be allocated for SCR grants, to come from the administrative budget in the Department of Healthcare and Family Services. Gov. Blagojevich currently supports leg-

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STATE FUNDING OF EMBRYONIC STEM CELL RESEARCH		
STATE	FUNDING MECHANISM	STATUS
California	Proposition 71, California Stem Cell Research and Cures Initiative: Allows the State to sell bonds in the amount of \$3 billion to fund embryonic SCR over a 10-year period. Reproductive cloning is banned but “therapeutic” cloning is permitted.	Passed by California voters in 2004.
Connecticut	Senate Bill 934, An Act Permitting Stem Cell Research and Banning the Cloning of Human Beings: Created the Stem Cell Research Fund to provide \$10 million in grants annually for adult and embryonic stem cell research.	Signed by Gov. Rell in June 2005.
Illinois	Executive Order 6: Provides financing of SCR through a line item in the State Budget giving the Public Health Department \$10 million to fund research. State funding may not be used for reproductive cloning or for research on fetuses from induced abortions.	Executive Order 6 issued by Gov. Blagojevich in July 2005. Grants were awarded in April 2006.
Maryland	Senate Bill 144, Maryland Stem Cell Research Act of 2006: Provides \$15 million for stem cell research in FY 2007. State-funded reproductive cloning is prohibited.	Passed the Legislature March 2006; signed by Gov. Ehrlich in April 2006.
New Jersey	State of NJ Commission on Science & Technology: \$5 million in SCR grants to 17 research projects; \$5.5 million for renovations and preparations for clinical trials at the Stem Cell Institute of NJ. Senate Bill 1471: Authorizes issuance of cigarette tax revenue bonds to fund State capital construction projects, including \$200 million for stem cell research facilities; voter approval required. Senate Bill 1091: Authorizes the sale of State general obligation bonds of \$230 million and appropriates \$5,000 for stem cell research grants in the State; voter approval required.	SCR grants awarded Dec. 2005. S. 1471 passed Senate in May 2006; Assembly bill pending. S. 1091 passed Senate in June 2006; Assembly bill pending.

islation that would allocate another \$100 million from the State’s tobacco settlement to fund SCR over five years, but it is stalled in the Legislature.

Maryland: The Maryland State Legislature passed the Maryland Stem Cell Research Act in March 2006, signed by Gov. Robert Ehrlich, Jr. (R) in April, creating the Maryland Stem Cell Research Fund “to promote state-funded stem research and cures through grants and loans to public and private entities in the State.” An independent, scientific peer-review committee will review applications and forward its opinions to the State panel. The budget for SCR in FY 2007 is \$15 million.

New Jersey: New Jersey was the first state in the nation to establish a State-supported SCR institute, the Stem Cell Institute of New Jersey, and to disburse funds for embryonic SCR. The State committed \$8.5 million to support work at the Institute in FY 2006, and in December 2005, the State of New Jersey Commission on Science & Technology granted \$5

million to 17 research projects throughout the State—10 of which were associated with the Institute (\$3 million)—for research on stem cells from embryos and other sources. In addition, the State has committed \$5.5 million to help fund preparations for clinical trials and building renovations that will support current work at the Institute.

In January 2006, as Senate President, Richard Codey introduced legislation that would authorize the State to seek voter approval to fund \$230 million in grants to support stem cell research, which the Senate passed in June. In addition, legislation sponsored by Richard Codey and Barbara Buono that would provide \$200 million for SCR facilities was passed by the Senate in May. The Assembly has not yet acted on these bills, which probably will not see action again until next year.

Activity in New York

While NYS does not yet provide funding for embryonic stem cell research, the State Assem-

bly approved legislation in January 2006 to provide \$300 million in State funds for embryonic SCR and other regenerative medicine projects over the next two years; the Senate has not acted on the bill.

Also in January 2006, Gov. George Pataki and Senate Majority Leader Joseph Bruno proposed a new Biotechnology and Biomedicine Research Initiative to create \$200 million in challenge grants for expanding biotechnology and biomedicine research and development at the State’s leading universities and teaching hospitals. The Governor defined the mission of the new initiative in broad terms as a program intended to “foster breakthroughs in public health that will save and improve lives.” The legislation for creating the initiative would enable the New York State Health Foundation, created by the conversion of Empire Blue Cross Blue Shield to a publicly traded entity, to “maximize the human health benefits of biomedicine and biotechnology research” in the State, according to the Governor’s press release. This proposal was opposed by Speaker Silver and others who favor new funding for stem cell research rather than diverting the Foundation’s funds from other, non-biomedical research purposes. Neither the Legislature nor the Foundation has acted on the proposal.

For more information on state legislative activity and funding related to embryonic stem cell research, see the National Conference of State Legislatures’ Web site at www.ncsl.org. ■

The Stem Cell Research Enhancement Act of 2006: How the Vote Broke Down

H.R. 810—the Stem Cell Research Enhancement Act—passed in the Senate on July 18 by a roll-call vote of 63 to 37, not enough to override a Presidential veto. Nineteen Republicans joined all but one Democrat in support of the Act, which had passed in the House last year by 238–194. Soon after the President vetoed the bill on July 19, the House took up a measure to override the veto, but failed to gain the two-thirds majority it needed to do so, with a final vote of 235–193. Voting to override were 51 Republicans, 183 Democrats, and 1 Independent, while 4 Democrats and 179 Republicans voted to sustain. The President’s veto of H.R. 810—his first use of that power since taking office—was notable, given the considerable support for the Act from Senate Republicans, including Senate Majority Leader Bill Frist (R-Tenn.) ■