California Proposition 71 (2004)

The California Stem Cell Research and Cures Act, also called Proposition 71, was a ballot initiative proposed by California voters in 2004 to allocate three billion dollars of state funds for stem cell research over ten years. Endorsed by California scientists and patient-advocates, Prop 71 passed on 2 November 2004, amending the state constitution to make stem cell research a constitutional right. In addition, Prop 71 led to the creation of the California Institute for Regenerative Medicine (CIRM), in San Francisco, California to allocate funds and oversee stem cell research in the state.

California scientists and patient-advocates initiated Prop 71 in response to US President George W. Bush's stem cell policy, which limited federal human embryonic stem cell research funding to the use of cell lines created before August 2001. Many scientists argued that embryonic stem cell research could enable future treatments for many diseases, and that progress towards developing such treatments would be deterred without public funding. With its many research-driven universities and biotech companies, the state of California could fund human embryonic stem cell (hESC) research that the federal policy of the Bush administration had prohibited federal funds.

On 22 September 2002, California governor Gray Davis signed legislation that allowed researchers in California to use human embryos, including cloned embryos, but did not allow reproductive cloning. This type of research involved somatic-cell nuclear transfer, a process where the nucleus from a non-reproductive cell is transferred into a reproductive cell that has had its own nucleus removed. Though the US federal government wouldn't fund hESC research that created new lines of human stem cells, the 2002 legislation in California ensured that research centers reserved the right to direct non-federal funding into stem-cell research. The university research groups and private research centers of California claimed that they needed state public funding if the state of California was to expand its stem cell research sector.

Robert Klein wrote much of Prop 71 and promoted the state funding of hESC research. Klein's child had Type I diabetes, an illness that scientists claimed hESC research may offer curative treatments for. Klein partnered with other Californians who were also parents of Type I diabetic children, including movie director Jerry Zucker, and his wife Janet Zucker. By September 2002, the Zuckers held fundraising dinners with stem cell scientists, such as James Thompson from the University of Wisconsin-Madison, and Paul Berg of Stanford University in Stanford, California.

Along with public officials and patient advocates, Klein and his constituents discussed the possibility of obtaining funding for stem cell research at the state level, and they pursued funding through California's ballot initiative. A ballot initiative is a means by which state citizens draft and enact laws by popular vote after the law's sponsors collect 100,000 signatures for the proposed law. Klein, who was familiar with California's ballot process, began drafting the stem cell initiative in consultation with patient advocates and biologists including Irving Weissman, also from Stanford, and Larry Goldstein from University of California, San Diego in La Jolla, California.

The final draft of Proposition 71 included an amendment to the state constitution that would make stem cell research a constitutional right and created a state institution, the California Institute for Regenerative Medicine (CIRM). Proposition 71 tasked the CIRM with distributing three billon dollars in grants over a decade for stem cell research. Proposition 71 authors recommended that the money be raised through the sale of public bonds. The authors said that CIRM would be governed by a board of twenty-nine members, the Independent Citizens Oversight Committee (ICOC), which would evaluate and approve grant proposals. Prop 71 specified that ICOC members were to be appointed by California elected officials and chancellors of the University of California system, who would select members to ensure representation from California's medical schools, research

institutes, patient-advocacy groups, and biotechnology and pharmaceutical industries.

The Yes on Prop 71 coalition began collecting signatures in the spring of 2004 to put the proposition on the ballot. Once publicized, the movement received support from a range of individuals and interest groups. Celebrities, many of who anticipated that hESC research may provide treatments to their injuries or disorders, such as Christopher Reeve, Michael J. Fox, and Edward James Olmos, appeared in television ads for voters to support the initiative. More than thirty Nobel laureates and 175 elected California officials endorsed Prop 71. Greater than fifty patient and disease advocacy groups helped broadcast the campaign by producing ads featuring California residents with diseases such as diabetes and multiple sclerosis, which were diseases that researchers anticipated to develop treatments for through hESC research. The campaign received the majority of its funding from private donors, such as founder of Microsoft, Bill Gates, the founder of eBay, Pierre Omidyar, and many other California-based entrepreneurs. Klein independently donated more than a million dollars to the campaign. In all, the Yes on Prop 71 coalition raised over thirty million dollars.

The No on Prop 71 group did not collect as much money. The California Catholic Conference, a lobbying group based in Sacramento, California, argued against the initiative and opposed state funding of stem cell research on a basis against the destruction of embryos. Other groups that opposed Prop 71 did not base their stance on the moral status of embryos. The Center for Genetics and Society, in Berkley, California, a pro-stem cell research organization that promoted regulation and responsible use of technologies, joined the No on Prop 71 coalition. It said that CIRM, the institute created by Prop 71, would be exempt from government oversight and therefore not properly accountable to the public.

The California Nurses Association, headquartered in Oakland, California, and Our Bodies Ourselves, an organization based in Cambridge, Massachusetts, said that if the proposition passed, females may be exploited due to the increased need for oocyte donations for therapeutic cloning research. These organizations also said that the initiative would use substantial tax dollars to fund a cause with no legislative oversight. All together the opposition coalition raised less than 10 percent of the funds raised by Yes on Prop 71 coalition.

Academics who studied the Proposition 71 movement later suggested that the Yes on Prop 71 coalition influenced citizens by framing hESC research as a public good, emphasizing that because every member of the public is susceptible to disease, every member stood to benefit from the cures hESC research promised to provide. Klein and other supporters of Prop 71 argued that religious ideologues were to blame for the lack stem cell research funding at the federal level, and they contended that those who opposed state funding of stem cell research valued their own personal religious ideology over the public good of producing cures that could benefit all citizens.

Proponents of Proposition 71 also argued that advancing stem cell research would advance California's economy. Many fiscal conservatives agreed with this argument. Although venture capitalists, biotechnology companies, and university researchers projected that they would benefit from the initiative, not everyone agreed that the state-sponsored investment in stem cell research would produce the promised cures and economic payoff.

On 2 November 2004, fifty-nine percent of California voters approved Proposition 71, and thus activated it into law. The California Institute for Regenerative Medicine (CIRM) was created as the organizational body to process and award grant funds to stem cell research groups. Klein appointed himself as committee chairman of Independent Citizens Oversight Committee.

Within months of Prop 71's passage, opponents, such as the People's Advocate and National Tax Limitation Foundation, filed a lawsuit again CIRM. They raised two issues. The first was that the initiative created a taxpayer-funded body, CIRM, was not subject to state oversight or regulation. The other concern regarded the CIRM's grant review committee, ICOC, which was charged to have an inherent conflict of interest because many of the committee members would apply for grants themselves.

A number of people who supported the Prop 71 campaign agreed that ICOC should be more accountable to the public. State Democratic representative Deborah Ortiz from Sacramento, one of Prop 71's initial advocates, advocated for the accountability measures that would make ICOC more

transparent to its public. Klein and other members of the ICOC countered that the implementation of accountability measures, such as open committee meetings, would slow research.

Grants for state-sponsored stem cell research were withheld for two and a half years while California Courts adjudicated lawsuits over the state constitutionality of Prop 71. Supreme Court upheld Prop 71's constitutionality when it declined to accept the case People's Advocate and National Tax Limitation Foundation v. Independent Citizen's Oversight Committee for review in 2006. In August 2006, a state loan of 150 million dollars allowed the Institute to open a competition that would determine which California scientists would be receive the first research grants. ICOC was found by the California courts to suffer no constitutional or legal infirmity, but a portion of the public continued to challenge ICOC to be more transparent in its policies. In March 2012 the ICOC board voted to develop an open access policy for all research they fund.

Between 2004 and 2012, the CIRM spent greater than 1.5 billion dollars on six new research facilities, grants, and the recruitment of scientists. In 2011 Advanced Cell Technology moved its headquarters from Worchester, Massachusetts, to Alameda, California, to take advantage of the state's funding for hESC research. However, by 2012, no treatments resulted from the state's three billion dollar investment, and the CIRM had funded only one clinical trial using hESC research, which was stopped by its sponsor before completion. The reserves from the original bonds to fund CIRM expire in 2017.

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