

Proposition 14:
**The California Stem Cell Research, Treatments,
And Cures Initiative Of 2020**

Bond Act

By

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I. EXECUTIVE SUMMARY

Proposition 14 authorizes the state to sell \$5.5 billion in general obligation bonds to support stem cell and other medical research, updating and renewing the program approved by voters in 2004. The research is aimed at developing treatments and cures for serious diseases and conditions like diabetes, cancer, HIV/AIDs, heart disease, paralysis, blindness, kidney disease, respiratory illnesses, and many more. Of the \$5.5 billion, \$1.5 billion will be dedicated to the support of research and the development of treatments for diseases and conditions of the brain and central nervous system, such as Alzheimer's disease, Parkinson's disease, stroke, dementia, epilepsy, depression, brain cancer, schizophrenia, autism, and other diseases and conditions of the brain. If the proposition passes, the estimated cost to taxpayers over time will be \$7.8 billion.¹

II. THE LAW

A. Existing Law

In 2004, California voters approved Proposition 71, which added a provision to the State Constitution affirming the right of researchers in California to conduct stem cell research.² Proposition 71 also created the California Institute for Regenerative Medicine (CIRM) to provide grants to universities and other entities in California to support stem cell research, development of new treatments, clinical trials, new research facilities, and other related activities.³ The measure also established a governing board to adopt CIRM policies and allocate funds, three advisory working groups to help guide the governing board, and an independent oversight committee to review CIRM's finances.⁴

These grants were funded by \$3 billion through the sale of public bonds; and the interest, another \$3 billion, was payable from the state's General Fund.⁵ As of June 2020, around \$30 million remains available for grants.⁶ In the event that Proposition 14 does not pass, CIRM has been decreasing staff and plans to maintain only those needed to manage remaining projects until they are completed.⁷

¹ *Proposition 14*, LEGISLATIVE ANALYST'S OFFICE, <https://lao.ca.gov/BallotAnalysis/Proposition?number=14&year=2020> (last visited Sept. 15, 2020).

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ *California Proposition 71, Stem Cell Research Bond Initiative (2004)*, BALLOTPEDIA, [https://ballotpedia.org/California_Proposition_71,_Stem_Cell_Research_Initiative_\(2004\)](https://ballotpedia.org/California_Proposition_71,_Stem_Cell_Research_Initiative_(2004)) (last visited Oct. 7, 2020).

⁶ LEGISLATIVE ANALYST'S OFFICE, *supra* note 1.

⁷ *Id.*

B. Relevant Peripheral Legislation

1. California State Law

California state law permits research on human embryonic stem cells, human embryonic germ cells, and human adult stem cells including somatic cell nuclear transplantation, that has been reviewed by a stem cell research oversight committee.⁸ This research is subject to the laws relating to the donation of tissue and the storage of embryos.⁹ California state law prohibits human reproductive cloning, however human reproductive cloning is not the same as embryonic stem cell research.¹⁰ Human reproductive cloning requires placing the embryos back into a uterine environment while embryonic stem cells are studied in a laboratory environment.¹¹

2. Federal Law

On March 9, 2009, President Obama issued an executive order, “Removing Barriers to Responsible Scientific Research Involving Human Stem Cells.”¹² This executive order removed limitations placed on research involving human embryonic stem cells created by President G.W. Bush in August 2001.¹³

On June 5, 2019, the Trump administration announced that it will no longer allow government scientists working for the National Institutes of Health (NIH) to conduct studies that use fetal tissue, and university scientists seeking NIH funding for such studies must now have each proposal examined by an ethics advisory board.¹⁴ The board would be made up of 14 to 20 people from various backgrounds, including at least one theologian, one ethicist, one physician, and one attorney.¹⁵ No more than half of the panel members can be scientists.¹⁶ Even though this is not directly related to stem cell research, it provides a glimpse into possible future restrictions that may arise if this administration remains in office.

⁸ CAL. HEALTH & SAFETY CODE § 125300.

⁹ CAL. HEALTH & SAFETY CODE §§ 125300–125320

¹⁰ CAL. HEALTH & SAFETY CODE §§ 24185–24187; CAL. BUS. & PROF. CODE §§ 16004, 16105.

¹¹ *What is cloning, and what does it have to do with stem cell research*, EUROSTEMCELL, <https://www.eurostemcell.org/what-cloning-and-what-does-it-have-to-do-with-stem-cell-research> (last visited Sept. 22, 2020)..

¹² Exec. Order No. 13505, 74 Fed. Reg. 10667 (Mar. 9, 2009).

¹³ *Id.*

¹⁴ Meredith Wadman, *Trump Administration Restricts Fetal Tissue Research*, SCIENCE (June 5, 2019, 2:26PM), <https://www.sciencemag.org/news/2019/06/trump-administration-restricts-fetal-tissue-research> (last visited Sept. 22, 2020).

¹⁵ *Id.*

¹⁶ *Id.*

3. Other States

Nearly a dozen states have launched initiatives for funding stem cell research, though they have not contributed as much money as California.¹⁷ Like California, some states allocated funding to support stem cell research in response to the restrictions on federal funding by the Bush administration, including Maryland and New York.¹⁸ In 2006, Maryland passed the Maryland Stem Cell Act of 2006 and to date has awarded \$165 million to promote state funded stem cell research through the Maryland Stem Cell Research Fund.¹⁹ Similarly, in 2007, New York launched the New York State Stem Cell Science program (NYSTEM) to support stem cell research across the state of New York.²⁰ To date, NYSTEM has awarded \$396 million to New York institutions.²¹

C. Current Funding and Revenue

1. Funding

A variety of sources fund stem cell research in California. These sources include: the federal government's National Institutes of Health, private investors, and CIRM, each having different goals and abilities.²²

Private sector investment generally occurs during the testing and development phase, rather than the initial basic research.²³ Scientists have referred to the stage right before industry becomes interested in the research as the "Valley of Death."²⁴ It is an area where promising therapies often languish, because there is not enough federal funding to push the projects through to the later stages.²⁵ CIRM has focused on funding the early research that leads to therapy ideas and fund projects that are in the Valley of Death stage, helping to keep good projects on track toward clinical therapies.²⁶

¹⁷ David Gorn, *Will Voters Continue to Pour Money Into Stem Cell Research*, HEALTH SHOTS NPR (Jan. 25, 2018), <https://www.npr.org/sections/health-shots/2018/01/25/579727683/will-state-voters-continue-to-pour-money-into-stem-cell-research> (last visited Oct. 7, 2020).

¹⁸ Hillary B. Alberta et al., *Assessing State Stem Cell Programs in the United States: How Has State Funding Affected Publication Trends?*, 16 *Cell Stem Cell* 115-118, (2016). <https://www.sciencedirect.com/science/article/pii/S1934590915000089> (last visited Oct. 7, 2020).

¹⁹ *About Us*, MSCRF MARYLAND STEM CELL RESEARCH FUND, <https://www.msccrf.org/about-us> (last visited Oct. 7, 2020).

²⁰ *About Us*, NYSTEM NEW YORK STATE STEM CELL SCIENCE, <https://stemcell.ny.gov/about-us-0#:~:text=History,research%20across%20New%20York%20State> (last visited Oct. 7, 2020).

²¹ *Id.*

²² *FAQ*, CIRM CALIFORNIA'S STEM CELL AGENCY, <https://www.cirm.ca.gov/about-cirm/cirm-faq#funding> (last visited Sept. 22, 2020).

²³ *How Stem Cell Research Is Funded*, AMERICANS FOR CURES, <https://americansforcures.org/stem-cells/how-stem-cell-research-is-funded/> (last visited Sept. 17, 2020)

²⁴ CIRM CALIFORNIA'S STEM CELL AGENCY, *supra* note 22.

²⁵ *Id.*

²⁶ *Id.*

CIRM has spent nearly all of its available funds.²⁷ The bonds issued under Proposition 71 comprised nearly all of CIRM's funding, with a relatively small amount of funding from investment income, private donations, or other sources.²⁸ As of June 2020, CIRM had \$30 million remaining for grants, and it has decreased its staff from a peak of 50 full-time staff to 35 full-time staff, planning to maintain some staff while the remaining projects are completed.²⁹

On the federal level, NIH awards grants to fund research nationwide and has a budget of \$40.3 billion for medical research in 2020.³⁰ More than 80% of NIH's funding is dispersed through competitive grants to research institutions across the nation and \$2.1 billion will go towards stem cell research in 2020.³¹

2. Revenue

Economists at the University of Southern California conducted an economic impact study of CIRM in October 2019.³² This study estimated that CIRM has added \$15.4 billion into the U.S. economy over 14 years.³³ The estimates are based on economic stimulus created by CIRM grants; co-funding; partnership funding; leverage funding of Alpha Stem Cell Clinics, follow-on funding, and CIRM operating expenditures.³⁴ This study was funded by CIRM.

a) Estimated Economic Impacts on California Economy

CIRM-funded activities added to the California economy \$10.7 billion in scientific research and development services, real estate, construction, hospitals, food manufacturing, wholesale trade, professional and health care services, and rental and leasing services.³⁵ These activities increased state and local tax revenues by \$434.1 million between 2005 and 2018.³⁶ Even if Proposition 14 does not pass, CIRM is still estimated to increase state and

²⁷ *Stem Cell Research*, LEGISLATIVE ANALYST'S OFFICE, as of 12/2/2019 available at <https://lao.ca.gov/ballot/2019/190611.pdf>.

²⁸ *Id.*

²⁹ LEGISLATIVE ANALYST'S OFFICE, *supra* note 1.

³⁰ *Budget*, NATIONAL INSTITUTES OF HEALTH, <https://www.nih.gov/about-nih/what-we-do/budget> (last visited Sept. 22, 2020).

³¹ *Funding*, NATIONAL INSTITUTES OF HEALTH, https://report.nih.gov/categorical_spending.aspx (last visited Oct. 7, 2020).

³² Dan Wei & Adam Rose, *Economic Impacts of the California Institute of Regenerative Medicine (CIRM)*, Schaeffer Center for Health Policy and Economics, Sol Price School of Public Policy, USC (Oct. 3, 2019) available at https://www.cirm.ca.gov/sites/default/files/CIRM_Economic%20Impact%20Report_10_3_19.pdf.

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*; Joyce E. Cutler, *California Stem Agency Put \$15 Billion into U.S. Economy (1)*, BLOOMBERG LAW, (Oct. 9, 2019, 7:09PM), <https://news.bloomberglaw.com/health-law-and-business/california-stem-cell-agency-put-15-billion-into-u-s-economy> (last visited Sept. 22, 2020).

³⁶ Wei, *supra* note 32.

local tax revenues by an additional \$207.2 million through 2023.³⁷ Additionally, CIRM created roughly 44,010 full-time equivalent jobs between 2005 and 2018, half of which offer salaries higher than the state average.³⁸ By 2023, that number is expected to increase to 56,549.³⁹

b) Estimated Economic Impacts on the Rest of U.S.

The quantified impact on the rest of the U.S. economy through 2023 is an estimated increase of \$4.7 billion in gross outcome.⁴⁰ Additionally, federal taxes from CIRM-related activities are estimated to have increased by \$726.6 million while adding an additional 25,816 jobs nationwide.⁴¹

D. Relevant Litigation

After voters approved Proposition 71, the California Family Bioethics Council challenged its constitutionality.⁴² In this case, the opponents made four allegations.⁴³ First, they alleged that the initiative violated California's single-subject requirement for initiatives because some of the provisions of the proposition covered more than stem cell research.⁴⁴ Second, they alleged that the Proposition 71 ballot materials were misleading in a way that violated due process of law.⁴⁵ Third, they alleged that the initiative created a taxpayer-funded entity that was not under the direct control of the state as required.⁴⁶ Fourth, they alleged that the Independent Citizens' Oversight Committee (ICOC) had an inherent conflict of interest because it would both award grants and include representatives of institutions that might receive grants.⁴⁷ The trial court rejected these allegations, as did the appellate court.⁴⁸

E. The Proposition

1. Effects of Proposition 14

If approved, Proposition 14 will allow for the issuance of \$5.5 billion in general obligation bonds.⁴⁹ These bonds will be used to continue funding stem cell and other vital

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *California Family Bioethics Council v. California Institute for Regenerative Medicine*, 147 Cal App 4th 1319 (1st Dist. 2007).

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.* at 1330.

⁴⁹ Cal. Proposition 14 (2020) (adding CAL. HEALTH & SAFETY CODE § 125290.75).

research to develop treatments and cures for serious diseases and conditions.⁵⁰ Proposition 14 will also set aside \$1.5 billion for research and therapy of brain and central nervous system diseases.⁵¹

2. Differences Between Proposition 14 and Proposition 71

Although much of the text is substantially the same, Proposition 14 not only renews this funding, but adds and updates the programs implemented by Proposition 71.⁵² There are four major updates.⁵³ First, Proposition 14 makes changes to improve access to therapies for California patients with insufficient funds, establishing an additional working group to focus on this effort.⁵⁴ Second, it increases the number of members on the ICOC from 29 to 35.⁵⁵ Third, it caps the number of bond-funded, full-time CIRM employees at 70, with an additional 15 dedicated to improving access to stem-cell-derived therapies and treatments.⁵⁶ Fourth, it establishes training programs for undergraduate students and fellowships for graduate students related to advanced degrees and technical careers in stem cell research, treatments, and cures.⁵⁷

Currently CIRM has three working groups that advise the ICOC, one each for medical research funding, research standards, and facilities grants.⁵⁸ Proposition 14 will create a fourth working group that will focus on improving access to treatments and cures.⁵⁹ It will also increase ICOC public meetings from two to four per year and place restrictions on the royalty revenues received through intellectual property agreements that go to the General Fund.⁶⁰ The royalties will be used to offset the costs to California patients who have insufficient means to purchase the treatment from institute-funded research instead of being used for other General Fund items.⁶¹

Under Proposition 14, the additional members of the ICOC will include a faculty member, physician/scientist, researcher, or executive officer from the UCSF Fresno/Clovis campus to promote geographic diversity and access; an additional member may be appointed by the Governor from the California State University system who has an advanced degree in biological sciences; the Governor and Lieutenant Governor each shall appoint an additional member that will include someone from a mental health conditions

⁵⁰ *Id.*

⁵¹ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(c).

⁵² *California Proposition 14, Stem Cell Research Bond Initiative (2020)*, BALLOTPEDIA, [https://ballotpedia.org/California_Proposition_14,_Stem_Cell_Research_Institute_Bond_Initiative_\(2020\)](https://ballotpedia.org/California_Proposition_14,_Stem_Cell_Research_Institute_Bond_Initiative_(2020)) (last accessed Sept. 23, 2020).

⁵³ *Id.*, *supra* note 52

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ Cal. Proposition 71 (2004) (amending CAL. HEALTH & SAFETY CODE § 125290.50).

⁵⁹ Cal. Proposition 14 (2020) (adding CAL. HEALTH & SAFETY CODE § 125290.75).

⁶⁰ *Id.*

⁶¹ *Id.* amending CAL. HEALTH & SAFETY CODE §125290.30(f)(1), (j)(1).

background; and the Treasurer and Controller shall each appoint a nurse with experience in clinical trial management and/or stem cell or genetic therapy delivery.⁶² Additionally, the initiative imposes a new employee cap of 70 that does not include members of the ICOC and 15 additional employees designated for the development of policies and programs to help make treatments available and affordable for Californians.⁶³

If approved, Proposition 14 will establish a scientific advisory task force to provide expert guidance to address specific objectives in areas under the institute's jurisdiction, including scientific, policy, ethical, financial, and technical matters.⁶⁴ The Chair and the President shall each appoint an equal number of members with expertise in the area for which advice is sought, including at least one member with a patient advocate perspective.⁶⁵

The initiative also amends Proposition 71 by adding additional accountability requirements that the ICOC shall update, at its discretion.⁶⁶ These include the standards relating to conflict of interest rules, ethical research and treatment, and independent financial audits, to be generally aligned with standards adopted by the National Academy of Sciences.⁶⁷

F. Path to the Ballot

After helping to draft the proposition, Robert N. Klein filed the ballot initiative on October 10, 2019.⁶⁸ Though the proponents did suspend signature gathering due to the coronavirus pandemic, on May 5, 2020, the proponents submitted 924,216 signatures for the ballot initiative.⁶⁹ Only 623,212 valid signatures were required.⁷⁰

G. Where the Money Goes and How It is Decided

Proposition 14 includes several rules and guidelines how the \$5.5 billion will be allocated.⁷¹ First, at least \$1.5 billion of the \$5.5 billion is reserved for grants for research and therapy for Alzheimer's, Parkinson's, stroke, epilepsy, and other brain and central nervous system diseases and conditions.⁷² Second, royalty revenues received through intellectual property agreements resulting from grants and loans awarded under

⁶² *Id.* amending CAL. HEALTH & SAFETY CODE § 125290.20(a).

⁶³ *Id.* amending CAL. HEALTH & SAFETY CODE § 125290.45(b)(1).

⁶⁴ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.76

⁶⁵ *Id.*

⁶⁶ *Id supra* note 64.

⁶⁷ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.30(l).

⁶⁸ BALLETOPEdia, *supra* note 52; Zoom Interview with Robert N. Klein, Proponent, Sacramento, Calif. (Sept. 25, 2020) (on file with the *California Initiative Review*).

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ Cal. Proposition 14 (2020) (adding CAL. HEALTH & SAFETY CODE § 125290.70.5).

⁷² *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(c).

Proposition 14 will be placed in an interest-bearing account in the General Fund.⁷³ That amount and its interest will be used to offset the costs of providing treatments and cures from institute-funded research to California patients with insufficient means.⁷⁴

The rest of the proceeds of the bonds sold for Proposition 14 will be divided by certain percentage parameters. First, no less than 95.5% of the proceeds will be used for grants and grant oversight.⁷⁵ Of the 95.5%, no less than 98% of those proceeds will be used for research, therapy development, and therapy delivery grants.⁷⁶ The other up to 2% of those proceeds will be used for research consulting in support of access to and affordability of treatments and cures.⁷⁷

The ICOC determines the amounts of the grants and to whom they are given.⁷⁸ Members of the ICOC are not allowed to participate in or influence decisions regarding approval of grants for their employers, though they may participate in decisions awarding grants for the purpose of research involving a disease from which a family member is suffering or in which they have interests as representatives of disease advocacy organizations.⁷⁹ Since it began granting funds in 2006, CIRM has recorded and published each grant, listing the grant type, the grant title, the institution with which the researcher is associated, the researcher's name, the award amount, the disease focus (beginning in 2007), the type of stem cell used (beginning in 2007), the grant number, the award's status, and the start and end dates.⁸⁰

The remaining 4.5% of the proceeds have more flexibility. Up to 3% of the proceeds may be used for the implementation costs of research and research facilities, which include development, administration, and oversight of the grant-making process.⁸¹ Up to 3% of the proceeds will be used for costs of general administration of CIRM.⁸² Up to 1% of the proceeds may be used to pay for up to 15 full-time employees for CIRM.⁸³

Additionally, Proposition 14 contains provisions that require grantees that gain revenue from their institute-funded projects to pay certain amounts back to the General Fund, dependent on factors such as the amount of revenue received, whether funding sources other than CIRM directly contributed to the development of the therapy or

⁷³ *Id.* amending CAL. HEALTH & SAFETY CODE § 125290.30(j)(1).

⁷⁴ *Id.*

⁷⁵ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(a)(1)(A).

⁷⁶ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(a)(1)(B).

⁷⁷ *Id.*

⁷⁸ *Id.* *supra* note 71 amending CAL. HEALTH & SAFETY CODE § 125290.40(c).

⁷⁹ Cal. Proposition 14 (2020) (amending CAL. HEALTH & SAFETY CODE §§ 125290.30(i)(1)(A-B)).

⁸⁰ *Grants*, CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE, <https://www.cirm.ca.gov/grants> (last accessed Sept. 23, 2020).

⁸¹ *Id.* *supra* note 79, adding CAL. HEALTH & SAFETY CODE § 125290.70.5(a)(1)(C).

⁸² *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(a)(2)(A).

⁸³ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(a)(2)(B).

technology, and whether the grantee self-commercializes a product resulting from an invention that arises from research funded by CIRM.⁸⁴

III. DRAFTING ISSUES

A. Ambiguous Terms

Proposition 14 includes a clause requiring no more than 1% of proceeds be used to pay for up to 15 full-time employees “over 10-15 or more years.”⁸⁵ The drafters state that this was left ambiguous to allow for these employees to be retained after other funding runs out to help wind down the ongoing grants, if necessary.⁸⁶ Another vague provision is the additional accountability requirement, which is framed as a requirement, but only requires that the ICOC update its standards relating to conflict of interest rules, ethical research and treatment, and independent financial audits *at its discretion* to be *generally aligned* with standards adopted by the National Academy of Sciences.⁸⁷

Further, in the additions regarding CIRM’s plan to assist California patients in obtaining therapies if those patients have insufficient funds, Proposition 14 does not include a definition of a “California patient” or how “insufficient funds” will be determined. This could cause confusion regarding (1) whether patients must be California residents to receive assistance, and, if so, for how long they must be residents, and (2) whether one’s funds are sufficiently “insufficient” to qualify for assistance. The drafters of the proposition note that this was done intentionally to leave that determination to the state and the board of CIRM.⁸⁸

B. Severability Clause

If any provisions of the text are found invalid, Proposition 14 includes a severability clause allowing the valid provisions to remain.⁸⁹ The majority of the text of Proposition 14 is similar to the text in Proposition 71, none of which has been held invalid. Though there are new added and amended provisions, they are not similar to the types of provisions that have been held invalid in other circumstances, as discussed below, and it is unlikely that Proposition 14 will have any invalid parts that are struck down.

⁸⁴ *Id.* amending CAL. HEALTH & SAFETY CODE § 125290.30(j)(2).

⁸⁵ *Id.* adding CAL. HEALTH & SAFETY CODE § 125290.70.5(a)(2)(B).

⁸⁶ Zoom Interview with Robert N. Klein, *supra* note 68.

⁸⁷ *Id.* *supra* note 67.

⁸⁸ Zoom Interview with Robert N. Klein, *supra* note 68.

⁸⁹ Cal. Proposition 14 at § 27 (2020).

IV. CONSTITUTIONAL AND STATUTORY ISSUES

A. Federal Constitution

The Commerce Clause of the Constitution grants Congress the power to regulate interstate commerce.⁹⁰ Because of this power, states cannot pass legislation that discriminates against or excessively burdens interstate commerce.⁹¹ The federal government has a particular interest in preventing states from enacting policies that favor citizens or businesses of that state at the expense of non-citizens conducting business within that state.⁹² However, when the state is acting as a business, these preferential policies are allowed.⁹³ This is called the market participation exception.⁹⁴

Here, CIRM has been established to be an institution under the “exclusive management and control of the State,” so its structure and actions affecting the market could be attributable to California.⁹⁵ Proposition 14 includes a provision which requires the ICOC to “establish standards to ensure that grantees purchase goods and services from California suppliers to the extent reasonably possible, in a good faith effort to achieve a goal of more than 50 percent of such purchases from California suppliers,” a provision which, on its face, seems to favor businesses within the state.⁹⁶ However, by purchasing goods and services, CIRM acts business in the marketplace, and thus it is likely the market participation exception applies and Proposition 14 does not violate the Constitution.

B. State Constitution

1. General Obligation Bonds

State general obligation bonds allow the state of California to borrow money from investors to fund public works projects.⁹⁷ The state commits to repay the bonds using the state General Fund and requires a majority of voters to approve general obligation bonds.⁹⁸ After selling the bonds the state makes regular payments over time until the bonds are paid off.⁹⁹

⁹⁰ U.S. CONST. art. 1, § 8, cl. 3.

⁹¹ *Commerce Clause*, LEGAL INFORMATION INSTITUTE, Cornell Law School, https://www.law.cornell.edu/wex/commerce_clause (last accessed Sept. 20, 2020).

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *California Family Bioethics Council*, *supra* note 42 at 1353.

⁹⁶ Cal. Proposition 14 (2020) (adding CAL. HEALTH & SAFETY CODE § 125290.30(k)).

⁹⁷ *Bonds 101* (2016), CALIFORNIA STATE TREASURER, *available at* <https://www.treasurer.ca.gov/publications/bonds101.pdf>.

⁹⁸ CAL. CONST., art. 16 §§ 1, 1.5.

⁹⁹ CAL. SEC’Y OF STATE, OFFICIAL VOTER INFORMATION GUIDE: CALIFORNIA GENERAL ELECTION, TUESDAY, November 3, 2020, at 78–79, *available at* <https://voterguide.sos.ca.gov/voter-info/overview-state-bond-debt.htm>.

As of 2020, the state has about \$80 billion in General-Fund-supported bonds that it is making annual principal and interest payments on, and it is estimated that the state is paying \$7 billion annually from the General Fund to repay these bonds.¹⁰⁰ The voters and legislature have approved around \$38 billion bonds that have yet to be sold.¹⁰¹ If voters approve Proposition 14, it is projected to increase the portion of the state’s annual General Fund revenues that are set aside to pay for bond debt, the debt-service ratio, by about one-fifth of one percentage point compared to what it would otherwise have been over the next couple of years.¹⁰²

2. Single-Subject Rule

The California Constitution requires voter initiatives to have a single subject.¹⁰³ The provisions of the initiative must be reasonably germane to each other.¹⁰⁴ The phrase “reasonably germane” requires that the provisions have a reasonable and common-sense relationship among their various components in furtherance of a common purpose.¹⁰⁵

There were two lawsuits challenging the constitutionality of Proposition 71. As a result, California’s First District Court of Appeal held, in part, that Proposition 71 did not violate the single-subject rule.¹⁰⁶ In that case, the court determined the trial court was correct in finding that the overarching subject of Proposition 71 was stem cell research and funding and that the other portions such as the development of the ICOC, inclusion of “other vital research opportunities” catch-all, and other administrative sections were reasonably interrelated and do not violate the single-subject rule.¹⁰⁷ Because Proposition 14 is an update and renewal of Proposition 71, most of the text is the same, and therefore that text almost certainly meets the single-subject rule. Proposition 14 does add new considerations regarding efforts to prioritize some funding for California patients who would otherwise have insufficient funds, but based on previous case law, it seems likely those additions would be ‘reasonably germane’ to the overarching subject of stem cell research and funding.

V. PUBLIC POLICY ISSUES

A. Proponents’ Arguments

On the whole, the proponents essentially assert that the research performed due to projects that CIRM helped fund has been saving and changing lives and that Proposition 14

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ CAL. CONST., art. 2 § 8(d).

¹⁰⁴ *Legislature v. Eu*, 54 Cal.3d 492, 512 (1991).

¹⁰⁵ *Id.* at 513.

¹⁰⁶ *California Family Bioethics Council*, *supra* note 42 at 1337.

¹⁰⁷ *Id.* at 1342-43.

would help sustain those projects and begin new ones.¹⁰⁸ The Yes on 14 campaign states that Proposition 71 has led to more than 90 clinical trials, two FDA-approved drugs for the treatment of two forms of fatal blood cancers, and over 2,900 published medical discoveries.¹⁰⁹ Further, proponents assert that CIRM-assisted research has led to some other promising cancer therapies that have reversed, over the course of two years, 80% mortality rates to 85% survival rates starting in stage four patients.¹¹⁰ There are over 800 patents pending for CIRM-funded discoveries, which proponents add would be a future source of state revenue.¹¹¹ They have added that this proposition is necessary to continue supporting ongoing trials and refining and testing discoveries.¹¹² Additionally, proponents add that, while many of the treatments are still in the early stages of clinical trials, there have been the following improvements to individuals lives: cancer patients who had exhausted all other therapies are now in remission; paralysis patients have regained upper body function; blind patients are regaining their eyesight; a cure has been developed for the once-fatal “bubble baby” disease; patients with Type 1 Diabetes have begun producing their own insulin; and multiple clinical trials are underway for leukemia, non-Hodgkin lymphoma, ovarian cancer, and more.¹¹³

Other supporters of this proposition include the University of California Board of Regents; members of the Yes on 14 coalition: Californians for Stem Cell Research, Treatments & Cures, which includes over 83 patient advocate organizations, several other organizations and individuals, including several Nobel Prize winners.¹¹⁴ One notable group that supports Proposition 14 is Seth and Lauren Rogen’s Hilarity for Charity non-profit, which the two created because Lauren Rogen’s mother suffered from Alzheimer’s; Seth Rogen even voiced a character called Stemmy the Stem Cell in a promotional video for Yes on 14.¹¹⁵

Another factor proponents, within and without CIRM and its grantees, note is the draw the potential for future scientific advancements, stating that the state’s funding attracts the best minds to contribute to the field of science and perhaps to establish their own businesses here; this benefits California’s economy and citizens, as well as the citizens of

¹⁰⁸ BALLETOPEDIA, *supra* note 52.

¹⁰⁹ *By the Numbers*, YES ON 14: CALIFORNIANS FOR STEM CELL RESEARCH, TREATMENTS AND CURES COMMITTEE, <https://caforcures.com/by-the-numbers/> (last accessed Sept. 21, 2020).

¹¹⁰ Zoom Interview with Robert N. Klein, *supra* note 68.

¹¹¹ *Proposition 14 Sample Talking Points*, YES ON 14: CALIFORNIANS FOR STEM CELL RESEARCH, TREATMENTS, AND CURES, (on file with the *California Initiative Review*).

¹¹² David Jensen, *Ballot Targeted for \$5.5 Billion Stem Cell Initiative*, CAP. WKLY., (Sept. 10, 2019), available at <https://capitolweekly.net/ballot-targeted-for-5-5-billion-stem-cell-initiative>; California Proposition 14, *supra* note 52.

¹¹³ *Proposition 14 Sample Talking Points*, *supra* note 111.

¹¹⁴ *Our Coalition*, YES ON 14: CALIFORNIANS FOR STEM CELL RESEARCH, TREATMENTS, AND CURES, <https://caforcures.com/coalition/> (last visited Sept. 20, 2020).

¹¹⁵ *Stemmy the Stem Cell Says Yes on 14!*, WORLD STEM CELL SUMMIT, <https://www.worldstemcellsummit.com/2020/09/21/stemmy-the-stem-cell-says-yes-on-prop-14/> (last visited Oct. 7, 2020).

this nation and others.¹¹⁶ According to some, Proposition 71 has made the state the “center of the stem cell universe.”¹¹⁷ Proponents are concerned that potential consequences of this funding not being renewed include the state’s loss of revenue and prestige regarding jobs, intellectual property, and leadership in the science sector.¹¹⁸ If Proposition 14 is not approved, CIRM will take further planned steps to wind down the program, including reducing its staff.¹¹⁹

B. Opponents’ Arguments

Opponents of the proposition argue that CIRM has issues regarding conflicts of interest and a lack of legislative oversight.¹²⁰ These claims appear to be similar to the claims that were dismissed by the courts in the *California Family Bioethics Council* case regarding Proposition 71.¹²¹ However, opponents assert that Proposition 14 further adds to those concerns by “outsourc[ing] critically important decisions about ethical standards to an unaccountable national committee.”¹²² Presumably, opponents make this argument because the proposition adds a provision regarding additional accountability requirements that require the ICOC to update its standards relating to conflict of interest rules, ethical research and treatment, and independent financial audits at its discretion “to be generally aligned with standards adopted by the National Academy of Sciences to the extent that such standards are consistent with constitutional and statutory requirements applicable to the institute.”¹²³ Opponents further argue that the ICOC is too large at 29 members, so they dislike the addition of 6 more members.¹²⁴ Regarding conflicts of interest in particular, opponents acknowledge that members of the ICOC cannot participate in votes to grant money to their own institutions, but they state that “the appearance of rampant conflicts is inescapable.”¹²⁵

¹¹⁶ Zoom Interview with Robert N. Klein, *supra* note 68.

¹¹⁷ Jocelyn Kaiser, *California’s Stem Cell Research Fund Dries Up*, SCIENCE, (July 9, 2019 3:35PM), available at <https://www.sciencemag.org/news/2019/07/california-s-stem-cell-research-fund-dries#:~:text=Stem%20cell%20scientists%20in%20California,eventually%20run%20out%20of%20money.>

¹¹⁸ Zoom Interview with Robert N. Klein, *supra* note 68.

¹¹⁹ David Jensen, *Stem Cell Contingency Planning in California: Winding Down a \$3 Billion Operation*, <http://californiastemcellreport.blogspot.com/2020/06/stem-cell-contingency-planning-in.html> (last visited Sept. 17, 2020)

¹²⁰ David Jensen, *\$5.5 Billion Stem Cell Rescue Plan Makes November Ballot*, CAP. WKLY., (June 22, 2020), available at <https://capitolweekly.net/5-5-billion-stem-cell-rescue-plan-makes-november-ballot/>.

¹²¹ *California Family Bioethics Council*, *supra* note 42.

¹²² David Jensen, *supra* at 120.

¹²³ Cal. Proposition 14 (2020) (adding CAL. HEALTH & SAFETY CODE § 125290.30(l)).

¹²⁴ The LA Times Editorial Board, *Endorsement: No on Proposition 14: It’s not the best way to support stem cell research*, LA TIMES (Oct. 1, 2020, 3:00 AM), available at <https://www.latimes.com/opinion/story/2020-10-01/endorsement-no-on-proposition-14-not-the-best-way-to-support-stem-cell-research>.

¹²⁵ Chronicle Editorial Board, *Chronicle recommends: No on Prop. 14; no need to replicate California’s disappointing stem cell experiment*, (Sept. 24, 2020, updated Oct. 6, 2020), available at <https://www.sfchronicle.com/opinion/editorials/article/Chronicle-recommends-No-on-Prop-14-no-need-to-15592513.php>

Opponents also note that the original rationale for this funding, the fact that the federal government had restricted funding for stem cell research at the time Proposition 71 was passed, has been eliminated because most of the federal funding restrictions have been lifted.¹²⁶ They also state that the two cancer treatments CIRM helped fund did not use embryonic stem cells, so they could have been federally funded even under the previous restrictions.¹²⁷ They also argue that voting on this sort of investment should be stalled until after the election, asserting that, if Democrats get more power, there should be growing support for embryonic stem-cell research at the federal level, which is from where they argue such funding should originate.¹²⁸

Opponents also assert that private industry has stepped up, though this seems to be difficult to substantiate.¹²⁹ Proponents respond to that argument by noting that private industry, due to its focus on financial return, is unlikely to fund high-risk projects, while government agencies can fund research with a focus on benefits to the public rather than on making money.¹³⁰

The named opponent on the California Voter Information Guide, John Seiler, asserts that the state cannot afford Proposition 14 “during this economic and budget crisis” and CIRM has “management challenges and poor results.”¹³¹ He also argues that “[s]ervicing debt of Prop. 14 could increase pressure for higher taxes or layoffs of nurses, first responders and other public employees.”¹³² When contacted for further information, he did not provide sources that proved these claims.

Right to Life of Central California, one opponent of Proposition 14, is a pro-life non-profit that is focused on activities such as having its employees and volunteers speak with individuals entering and leaving Planned Parenthood and “defend[ing] the sanctity of all human life.”¹³³ Right to Life of Central California states that it is against embryonic stem cell research as a whole because they believe it cheapens human life and is irresponsible spending.¹³⁴ They argue that the human embryos used in some of the research funded by CIRM are unique human organisms, and their use for research instrumentalizes human life.¹³⁵ They also argue that it is a waste of money because the public has not yet seen the

¹²⁶ Orange County Register Editorial Board, *Vote No on Prop. 14, a Costly Unnecessary Bond Measure*, ORANGE COUNTY REG., (Sept. 24, 2020, 10:36 AM), available at <https://www.ocregister.com/2020/08/10/vote-no-on-prop-14-a-costly-unnecessary-bond-measure/>.

¹²⁷ The LA Times Editorial Board, *supra* note 124.

¹²⁸ *Id.*

¹²⁹ Orange County Register Editorial Board, *supra* note 126.

¹³⁰ *CIRM FAQ*, CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE, <https://www.cirm.ca.gov/about-cirm/cirm-faq#industry> (last visited Sept. 22, 2020).

¹³¹ CAL. SEC’Y OF STATE, OFFICIAL VOTER INFORMATION GUIDE: CALIFORNIA GENERAL ELECTION, TUESDAY, NOVEMBER 3, 2020, at 8, available at <https://vig.cdn.sos.ca.gov/2020/general/pdf/complete-vig.pdf>.

¹³² *Id.*

¹³³ John Gerardi, *Proposition 14: Vote NO*, RIGHT TO LIFE OF CENT. CAL., (July 13, 2020), available at <https://righttolifeca.org/proposition-14-vote-no/>.

¹³⁴ *Id.*

¹³⁵ *Id.*

benefits of this research, though this can be contradicted by the proponents' list of accomplishments above.¹³⁶ They state they would not support CIRM unless it exclusively turned to adult stem cells and induced pluripotent stem cells, which are derived from skin or blood cells and reprogrammed back into an embryonic-like state.¹³⁷

C. Campaign Finance

1. Proponents

There is a political action committee titled "Yes on 14: Californians for Stem Cell Research, Treatments and Cures."¹³⁸ As of September 22, 2020, it has received \$6,605,389.51 in contributions and has spent \$6,919,032.06.¹³⁹ The largest donor is Robert N. Klein II (Klein Financial Corporation), contributing a total of \$4,628,924.51, in-kind contributions making up \$4,503,924.51 of that amount.¹⁴⁰ Other top donors include Juvenile Diabetes Research Foundation, Open Philanthropy Action Fund, Ann S. Tsukamoto, and One Mind for Research, Inc. Juvenile Diabetes Research Foundation describes itself as the leading global organization funding type 1 diabetes research.¹⁴¹ Open Philanthropy Action Fund is a 501(c)(4) social welfare organization.¹⁴² Ann S. Tsukamoto is a doctor who has spent over 20 years working in stem cell biology, and her work has led to many advancements, including in comprehending the blood systems of cancer patients.¹⁴³ One Mind for Research is a non-profit organization that focuses on encouraging developments in brain health.¹⁴⁴

¹³⁶ *Id.*; Yes on 14, *supra* note 109.

¹³⁷ John Gerardi, *supra* note 133; *Induced Pluripotent Stem Cells (iPS)*, UCLA BROAD STEM CELL RESEARCH CTR., <https://stemcell.ucla.edu/induced-pluripotent-stem-cells> (last visited Oct. 7, 2020).

¹³⁸ *Campaign Finance: Yes on 14: Californians for Stem Cell Research, Treatments and Cures*, CAL. SEC'Y OF STATE, <http://cal-access.sos.ca.gov/Campaign/Committees/Detail.aspx?id=1422494> (last visited Sept. 22, 2020).

¹³⁹ BALLOTPEDIA, *supra* note 52.

¹⁴⁰ *Id.*

¹⁴¹ *About*, JUVENILE DIABETES RESEARCH FOUNDATION, <https://www.jdrf.org/about/> (last visited Sept. 22, 2020).

¹⁴² *Who We Are*, OPEN PHILANTHROPY, <https://www.openphilanthropy.org/about/who-we-are> (last visited Sept. 22, 2020); Arrianna Eunjung Cha, *Cari Tuna and Dustin Moskovitz: Young Silicon Valley Billionaires Pioneer New Approach to Philanthropy*, WASH. POST, (Dec. 26, 2014), available at https://www.washingtonpost.com/business/billionaire-couple-give-plenty-to-charity-but-they-do-quite-a-bit-of-homework/2014/12/26/19fae34c-86d6-11e4-b9b7-b8632ae73d25_story.html.

¹⁴³ *Powering Change: Women in Innovation & Creativity*, CPA GLOBAL, <https://www.cpaglobal.com/women-innovators/dr-ann-tsukamoto> (last visited Sept. 20, 2020); National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Health Sciences Policy; Forum on Regenerative Medicine Washington (DC), *Speaker Biological Sketches*, available at <https://www.ncbi.nlm.nih.gov/books/NBK436801/>.

¹⁴⁴ *About One Mind*, ONE MIND, <https://onemind.org/about-us/> (last visited Sept. 22, 2020).

2. Opponents

Though there is a political action committee for No on Proposition 14 registered with the California Secretary of State, it has not yet recorded any filings.¹⁴⁵ We have not found any readily available evidence about campaign contributions the named opponent, John Sieler, has made.¹⁴⁶

D. Fiscal Considerations

Proposition 14 has an estimated total cost, including interest, of approximately \$7.8 billion, equaling an average of about \$260 million per year over 30 years; this is about 4% more than the state currently spends from the General Fund on its bond debt.¹⁴⁷

An economic impact study, funded by CIRM, focused on the various economic impacts of CIRM over and above its main functions of improving health and well-being.¹⁴⁸ The increases in economic output, employment and tax revenues represent valuable co-benefits of CIRM activities.¹⁴⁹ Such benefits emanate not only from CIRM direct funding commitments but also from co-funding, partnership funding, follow-on funding, and additional leveraged funding.¹⁵⁰ Not only the direct impacts but also various indirect impacts were quantified as CIRM and related expenditures ripple throughout the economy.¹⁵¹

The report estimated that the total impacts of CIRM to date on the California economy have been: \$10.7 billion of additional gross output (sales revenue); \$641.3 million of additional state and local tax revenues; \$726.6 million of additional federal tax revenues; and 56,549 additional full-time equivalent jobs, half of which offer salaries considerably higher than the state average.¹⁵² Additionally, the report determined that the impact on the economy of the rest of the U.S. has been: \$4.7 billion of additional gross output; \$198.7 million of additional state and local tax revenues; \$208.6 million of additional federal tax revenues; and 25,816 additional jobs.¹⁵³

Another consideration is that, under Proposition 14, the bonds are to be sold over a period of no less than 10 years, with the cost of the bonds spread over 40 years so that the

¹⁴⁵ *Campaign Finance: No on Proposition 14*, CAL. SEC'Y OF STATE, <http://cal-access.sos.ca.gov/Campaign/Committees/Detail.aspx?id=1429603&session=2019&view=electronic> (last accessed Sept. 22, 2020).

¹⁴⁶ CAL. SEC'Y OF STATE, OFFICIAL VOTER INFORMATION GUIDE: CALIFORNIA GENERAL ELECTION, TUESDAY, NOVEMBER 3, 2020, at 8, available at <https://vig.cdn.sos.ca.gov/2020/general/pdf/complete-vig.pdf>.

¹⁴⁷ *Id.* at 78–79, available at <https://voterguide.sos.ca.gov/voter-info/overview-state-bond-debt.htm>.

¹⁴⁸ Wei, *supra* note 32.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *Id.*

¹⁵³ *Id.*

repayment is aligned with the period of time over which California patients are expected to benefit from institute-funded research.¹⁵⁴

VI. CONCLUSION

Proposition 14 updates and renews the stem cell research program approved by Californian voters in 2004 (Proposition 71). Proposition 14 grants \$5.5 billion in bonds for projects related to stem cell and other medical research aimed at developing treatments and cures for serious diseases such as diabetes, cancer, and heart disease, among many others.¹⁵⁵ Over the years, many researchers have relied on this funding to perform studies and begin over 90 clinical trials, and it has led to two FDA-approved drugs to treat fatal blood cancer and over 2,900 published medical discoveries.¹⁵⁶ Among other adjustments to the previous program such as increasing the number of members on the ICOC, Proposition 14 adds an emphasis on supporting California patients with insufficient funds.

The proponents argue that this funding will continue to support innovation, develop therapies and cures for patients with serious diseases, and help maintain the jobs and prestige state-assisted stem cell research has brought to California. The opponents argue that Proposition 14 does not address their concern with CIRM's lack of legislative oversight and potential conflicts of interest, though the California courts dismissed these concerns regarding Proposition 71 and Proposition 14 does contain safeguards for managing conflicts of interest. The opponents also argue that there is no longer as much of a need for this funding because the federal government has removed many of its previous restrictions on funding stem cell research.

A "yes" vote for Proposition 14 will allow the state to provide \$5.5 billion in bonds for stem cell and other medical research, renewing and updating the program that has been in place since 2004.

A "no" vote for Proposition 14 will not allow the state to provide \$5.5 billion in bonds for stem cell and other medical research, and the current program will end after spending its remaining funding on projects to which it has already allocated money and completing its employment of CIRM staff members.

¹⁵⁴ Cal. Proposition 14 section 3, Purpose and Intent (2020).

¹⁵⁵ *Id.*

¹⁵⁶ Yes on 14, *supra* note 109.