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Public Comments to CIRM Application Review Subcommittee Meeting on August 29, 2024

Dear CIRM,

Thanks for the meeting notice and thank you for this opportunity to present my Public Comment.

In 2022 prior to CIRM asked me to demonstrate conflicts of interest (COI) before appealing in front of ICOC, I had several heated email communications with Kevin McCormack, Director of Patient Advocacy at CIRM not long before his death. Kevin was the only exception at CIRM who made me feel welcome and actually answered my emails with kindness. His pass along with our co-founder Denny Moore --- a Vietnam war veteran, fighter pilot, POW, war hero, and true supporter for human embryonic stem cell (hESC) research --- at almost the same time in the end of 2022 was devastating to me. Unlike me, someone from China who lost the ability to believe in any cause a long time ago, they both believed in the cause and did their best within their power to help me, not for the money, but for the cause. Today, they are no longer here to guide us, but their spirits live in us, transcend us. I want people to remember them, remember them as the true heroes who fought for a cause they believed in. I want people to see the true face of those hypocrites who, just like me, never believe in the cause, see their greed, see their deception, see their moral corruption, see their misconduct, see their bully, see their non-inclusiveness, see their unfairness, see their ruthlessness, see their obsession with fame, see their tentacles spread all over top scientific journals and public funding agencies, because I know that is what they want too.

I'd like to make a public comment regarding CIRM continued and accelerated misappropriation of tens and hundreds of millions of taxpayer money of a "Blue" State to induced pluripotent stem cells (iPSC) that are in fact adult cells reprogrammed with oncogenes or cancer cells – the scarlet "Red" adult stem cell Ponzi scheme of the Bush Administration -- under the leadership of CIRM former Chair Jon Thomas, now CIRM very unqualified new President even according to CIRM's own presidential search criteria, who was directly responsible for massive misappropriation of billions of California taxpayer money to iPSC Ponzi scheme in > \$ 1 billion of CIRM iPSC awards and other scams in > \$ 2 billion of CIRM awards demonstrated by over 150 total failures in CIRM clinical trial awards during his term. CIRM ICOC oversight committee has the responsibility to investigate the allegations of scientific misconduct in CIRM awards. CIRM ICOC oversight committee owe California taxpayers/voters an explanation why CIRM would not take the evidence of scientific misconduct seriously, including preclinical animal safety and efficacy data plagiarism in CIRM CLIN2-15547 of Aspen Neuroscience for their iPSC product ANPD001 and in CIRM CLIN2-14300 of Ryne Bio/Kenai Therapeutics for their iPSC product RNDP-001 against the code of scientific

conduct, and upcoming ReMIND iPSC awards for mental diseases in which they have used faked iPSC differentiation protocols and data against the code of scientific conduct in CIRM grant applications. CIRM ICOC oversight committee owe California taxpayers/voters an explanation why CIRM Review has failed so badly to detect such data fabrication and falsification against the code of scientific conduct in CIRM awards that has indeed resulted in massive misappropriation of California taxpayer dollars in the staggering amounts of billions.

I'd also like to bring your attention to the conflicts of interest (COI) of CIRM Review, including Linda Nevin and CIRM VPs, which have resulted in the worsen ambiguity, biases, and double stands of CIRM eligibility criteria intentionally set by CIRM Review Linda Nevin against the code of scientific conduct to confuse the applicants of human embryonic stem cell (hESC) research that CIRM is compelled by California Propositions and voters to fund. So CIRM Review Linda Nevin could use biased eligibility criteria not found in CIRM application instruction and package to deliberately give hESC researchers a difficult time to apply for CIRM funding, and instead give her iPSC scammers preferential treatment for CIRM awards to benefit her own COI, which CIRM has not disclosed to the public according to the COI law of the State of California about its employees. Linda Nevin was a PLOS senior editor with UCSF ties and directly responsible for many fraudulent iPSC papers using faked data published in PLOS, including Fred Gage and Alysson Muotri's papers. She has also been abusing her CIRM review position at the cost of California taxpayer money to facilitate many CIRM iPSC Ponzi scheme awards, in collaboration with CIRM VPs -- to benefit her close ties that Linda Nevin has built an extensive network of connections through her previous favors as the senior editor of PLOS, including many CIRM iPSC Ponzi scheme awards to UCSF; CIRM iPSC education awards to train more iPSC scammers in higher education; CIRM iPSC center or shared resource awards; CIRM iPSC manufacturing awards; additional CIRM iPSC center or shared resource awards to Fred Gage of Salk Institute, Denise Al Alam of Lundquist Institute of UCLA, and Arun Sharma of UCLA Cedars-Sinai – the student of Joseph Wu of Stanford University linked to the Nobel Prize-winning Ponzi scammer Shinya Yamanaka and Deepak Srivastava of UCSF Cardiovascular Research Institute closely tied to CIRM Review Linda Nevin and VP Gil Sambrano -- who has used faked iPSC differentiation protocols and data against the code of scientific conduct in his CIRM grant application, and upcoming ReMIND iPSC awards for mental diseases in which they have used faked iPSC neuronal differentiation protocols and data against the code of scientific conduct in their CIRM grant applications. CIRM Review's COI to my application TRAN4-17025, titled "A Defined hESC Platform Enabling Large Scale Manufacturing of Clinical-Grade Cardiomyocytes for Heart Regenerative Therapy and Biofabrication" is also demonstrated by CIRM VP of Portfolio Development and Review Gil Sambrano's close tie to Shinya Yamanaka and Deepak Srivastava of UCSF and Joseph Wu of Stanford University, which can be found in CIRM \$19 million award DR2A-05394 to Deepak Srivastava of UCSF and Joseph Wu of Stanford University he facilitated, in which they used faked hESC/iPSC differentiation protocols and data against the code of scientific conduct in their CIRM grant application, and as a result, has produced absolutely nothing beneficiary to patients with end-stage heart failure.

It is an undeniable scientific fact that iPSC are adult cells reprogrammed with oncogenes or cancer cells harboring oncogenes (the scientific term for cancers is reprogramming), an adult stem cell Ponzi scheme or scam created by the opponents of hESC research during the Bush

Administration, which has resulted in “the massive fraud and waste of the Obama Administration” that is under Congressional and HHS investigations. Even NIH former Director Francis Collins and White House science advisor Eric Lander resigned or retired for their involvement in iPSC Ponzi scheme. Even UCSF Nobel Prize winning iPSC Ponzi scammer Shinya Yamanaka and Deepak Srivastava of UCSF Cardiovascular Research Institute who directed the NIH iPSC Center grant in collaboration with MIT reprogramming professor Rudy Jaenisch, the founder of the iPSC Company Fate therapeutics and ISSCR former President, were found scientific misconduct that resulted in termination of their NIH iPSC grants. You could find more about the manufacturing process of the iPSC Ponzi scheme and those behind it who colluded to profit from government funding and private investment on my website <https://www.sdrmi.org>.

One well-known scientific fact about cancers is that cancer cells have lost their ability to differentiate. I always wonder how those “geniuses”, like Alysson Muotri of UCSD, Joseph Wu of Stanford University, and Arun Sharma of UCLA Cedars-Sinai, turned iPSC – the cancer cells – into neurons or cardiomyocytes. There is no possible scientific way to turn iPSC into any normal human functional cells; the only way to do it is by falsifying and fabricating data against the code of scientific conduct. Today, I could not believe how audacious and conspicuous the data falsification and fabrication of those iPSC differentiation protocols are in the publications of the top scientific journals.

For example, the copycat Alysson Muotri of UCSD does not even have one convincing image to show his iPSC neurons express any neuronal markers and he has any “brain organoids or mini brains” for him to send to space. Please see what the real brain organoids or mini brains look like and what the real neuronal marker expression looks like at <https://www.sdrmi.org>. In his Nature Neuroscience paper [Nat Neurosci. 2021;24:1089–1099. doi:10.1038/s41593-021-00864-y], the iPSC neurons he claimed he generated from his iPSC differentiation protocol do not even look like neurons in his low-resolution images that show very weak expression of only one neuronal transcriptional factor TuJ1/beta-III-tubulin that often displays false positive in many different types of cells, including undifferentiated cells, non-neuronal cells, and cancer cells. What he has in his papers is in fact negative data or images of neurons that he falsely claims positive. TuJ1/beta-III-tubulin low-resolution images of his iPSC neuron look really dull and fake, no idea how he got his paper with faked iPSC neurons published in peer-reviewed top scientific journals. Please see what TuJ1/beta-III-tubulin expression really looks like in neurons at <https://www.sdrmi.org>, and the real TuJ1/beta-III-tubulin high resolution images of neurons looks bright and beautiful, something the copycat Alysson Muotri of UCSD could not fake in his papers, in his CIRM grants, and in his NIH grants from National Institute of Mental Health. Have a closer look of Alysson Muotri’s papers in Nature Communication [Nat. Comm. 2022;13:2387, doi: 10.1038/s41467-022-29942-w; Nat. Comm. 2022, 26;13:7945, doi: 10.1038/s41467-022-35536-3], Nature Protocol [Nat Protoc. 2024. doi: 10.1038/s41596-024-00994-0], and Cell Stem Cell [CSC 2019;25, 558–569, doi.org/10.1016/j.stem.2019.08.002], he actually doctored the images against the code of scientific conduct for him to make false claims. For example, he deliberately overlaid images from different fields onto one photo to fabricate his “mini-brains” and falsely claim he generated some kind of “brain organoids”. It is easily visible that Alysson Muotri manipulated his data in his papers since his marker immunofluorescence

stains do not align with DAPI or the cells; his CR and Map2 marker immunofluorescence stains of his iPSC GABAergic neurons also do not align with DAPI or the cells; his neuron marker Map2 immunofluorescence stains scatter around the middle of nowhere like some contaminated fibers, obviously fabricated or faked; his GABAergic marker CR immunofluorescence stains also do not overlap or co-express with his neuron marker Map2 to show anything is actually iPSC GABAergic neurons. In all his publications, Alysson Muotri does not even have one high-resolution image to show the cellular distribution and localization of any neuron markers co-expressing with GABAergic neuron markers, the minimal data requirement to show he has any iPSC GABAergic neurons or “mini brains” or “brain organoids”, considering he has received ~ \$12 million of CIRM investment of California taxpayer dollars, and tens of millions of NIH investment of taxpayer dollars, plus hundreds of millions of CIRM and NIH investment to the resource of Sanford Consortium for Regenerative Medicine. Please see what Map2 expression really looks like in neurons at <https://www.sdrmi.org>, and the real Map2 high-resolution images of neurons looks bright and beautiful, something the copycat Alysson Muotri of UCSD could not fake in his papers, in his CIRM grants, and in his NIH grants. Since all he has is negative data of neurons, he has also falsified and fabricated his entire electrophysiological data published in Nature Communication, Nature Protocol, and Cell Stem Cell that he used in NIH and CIRM grants. Alysson Muotri actually claims it takes 10 months, far worse than any spontaneous differentiation and inconsistent with human development, for his iPSC differentiation protocol to turn iPSC into any GABAergic neurons with efficiency and quality looking even worse than any spontaneous differentiation in his faked image data. Please see the hESC neuronal differentiation protocol with drastic improvement and the resulting neurons that only takes 2 weeks to form, consistent with human development, at <https://www.sdrmi.org>. It is unbelievable how Alysson Muotri could even get such garbage iPSC differentiation protocol published in top scientific journals for him to use faked data of his iPSC differentiation protocol to scam ~ \$12 millions of CIRM grants, including TR2-01814, TR4-06747, DISC1-08825, DISC2-09649, DISC2-13515, EDUC4-12804; and tens of millions of NIH grants, including, R01AG078959, RF1AG084030, R01HD107788, R01MH100175, R01MH123828, R01MH127077, R01MH108528, R01MH094753, R01MH109885, R56MH109587, R01ES033636, R01NS123642, R01DA056908; and why the peer-review system of top scientific journals and public funding agencies could not even detect such easily-visible data manipulation, misrepresentation, fabrication, and falsification against the code of scientific conduct.

For example, Joseph Wu of Stanford University and his student Arun Sharma of UCLA Cedars-Sinai do not even one convincing image to show their iPSC beating cardiomyocytes express any cardiomyocyte markers, nor any video or electrical recording to show his iPSC beating cardiomyocytes could really beat like real human beating cardiomyocytes in all their publications. Please see the drastically improved hESC cardiomyocyte differentiation protocol and the real human contractile cardiomyocytes beat like a baby beating heart at <https://www.sdrmi.org>. In Arun Sharma’s Current Protocol paper [Curr Protoc. 2023; 3: e767. doi:10.1002/cpz1.767] and Joseph Wu and Arun Sharma’s Nature Protocol paper [Nat Protoc. 2018; 13: 3018–3041. doi:10.1038/s41596-018-0076-8], they misrepresented, falsified, and fabricated their immunofluorescence staining of their cardiomyocyte markers of their iPSC cardiomyocytes (hiPSC-CM) they claimed beating against the code of scientific conduct. Instead of showing the marker expression of all the cells in the image or the field of their hiPSC-CM like any normal scientific presentation should do, they only showed a low-resolution imposed image

of one single cell or one single isolated cell expressing cardiac markers with absolutely no data showing beating of that single cell, nor any data to show improvement from any spontaneous differentiation, nor anything indicating that single cell was actually from the image or the field of their hiPSC-CM, obviously their hiPSC-CM differentiation protocol and data are faked. Since Arun Sharma and Joseph Wu's hiPSC-CM are faked, they have also falsified and fabricated their entire hiPSC-CM data in all their publications, including electrophysiological data, cytotoxicity data, contractility data, and preclinical animal data. It is unbelievable how Joseph Wu and Arun Sharma could even get such garbage iPSC differentiation protocol published in top scientific journals for them to use faked data of their iPSC differentiation protocol to scam ~ \$40 millions of CIRM grants, including TRAN4-09884, CLIN2-12735, RT3-07798, IT1-06596, DR2A-05394, TR3-05556, RS1-00322; and tens of millions of NIH grants, including, P01HL152953, P01HL141084, R01HL145676, R01HL150693, R01HL126527, R01HL123968, R01HL141851, UH3TR002588, R01HL141371, R01HL113006, R01HL126527, R24HL117756, R01HL128170; and why the peer-review system of top scientific journals and public funding agencies could not even detect such easily-visible data manipulation, misrepresentation, fabrication, and falsification against the code of scientific conduct.

Steve Jobs once said "innovation distinguishes between a leader and a follower". Science is driven by technology innovation, but not by cronyism, and innovation distinguishes the copycat from the original.

In 2010, Duke professor and former SFN President arranged for me to present my talk "*Deriving cardiac elements from pluripotent human embryonic stem cells (hESC) for heart reconstitution*" at Keystone Symposium, which led to the launch of CIRM Stem Cell Research Leadership Awards. However, in the same year, under the leadership of then ISSCR President Irving Weissman of Stanford University, ISSCR rejected my poster presentation in San Francisco to my astonishment because I had never heard of such things for any scientific meetings in the scientific world before, especially an original stem cell research presentation quite proper for a stem cell research society meeting. Today, we all know the well-publicized story that CIRM gave the Stem Cell Research Leadership Award to the copycat Robert Wechsler-Reya of Duke, the husband of Irving Weissman's student, even though he had never done any stem cell research before, and as a result, he has never been able to provide any stem cell research leadership for CIRM since. The little publicized story is that Robert Wechsler-Reya was found manipulating data in his study of pediatric brain tumors funded by the CIRM Stem Cell Research Leadership Award in his 2020 Nature Neuroscience paper that he ended up having to retract.

In 2016, I went to CIRM in San Francisco to present to a dark hall of brilliant minds my ambitious proposal to create clinical-grade CIRM translating center to leverage stem cell treatment development and manufacturing innovations for progressing to the clinic based on my hESC research technology breakthrough innovations. I was very uncomfortable that CIRM staff were so cringing of public sighting of me, which I did not understand. However, under the leadership of CIRM former Chair Jon Thomas, now CIRM very unqualified new President even according to CIRM's own presidential search criteria, CIRM gave ~\$27 M of California taxpayer money to a copycat Company of CIRM Chair's industry tie IQVIA, formerly Quintiles and IMS Health, that has

no technology, no product, no science, no clinical-grade translating capability to enable any translating center, and as a result, has created no center of any kind to expedite any development and delivery of high quality stem cell therapies to patients after 8 years and ~\$27 million of California taxpayer dollars. Instead, CIRM also gave ~\$ 16 M of California taxpayer money to CIRM President's close tie Catriona Jamieson of UCSD, also Irving Weissman's student, who has no technology, no product, no science, no clinical-grade translating capability to enable CIRM Alpha Stem Cell Clinics, and as a result, has advanced no promising stem cell therapies to clinics after over a decade and tens of millions of California taxpayer dollars plus hundreds of millions of private donations from Sanford to UCSD.

Today, I could not believe some of those false, fraudulent, misleading, and baseless statements came out of those CIRM-funded centers and shared resources in the news and press releases of some of the most prestigious Institutions of the Nation. For example, Catriona Jamieson of UCSD Alpha Stem Cell Clinics has openly and very proudly claimed in their press releases and news that they are "transforming stem cells into cancer cells" to publicize the serious, deliberate, malicious intention of CIRM Alpha Stem Cell Clinics to patients. For example, some very basic but crucial scientific information was deliberately omitted in their press releases and news to give people false perception, including Fred Gage of Salk Institute, also Irving Weissman's student, and Alysson Muotri of UCSD, Fred Gage's student, such as what stem cells they used and how they were made.

It is all public information and common scientific knowledge for decades that the 4 genes Shinya Yamanaka put into skin cells to create the iPSC Ponzi scheme are oncogenes. However, barely mentioning such public information in social media even caused my facebook to be blocked by the Nobel Prize Organization. Today, I still could not believe how long the iPSC Ponzi scheme has lasted and how damaging the iPSC Ponzi scheme has done to the scientific community and the funding for scientific research. Like CD47 – the "Do Not Eat Me Signal" – of Irving Weissman, do we have the scientific knowledge to know for sure that iPSC is going to cause cancers and fail in clinical trials before going into clinical trials? The answer is "YES". Do we really have to go into clinical trials for the scientific community and the public to find out iPSC are cancer cells and scam? The answer is "NO". Over 10 years ago, Jun Takahashi and Shinya Yamanaka ran a clinical trial of iPSC in an eye disease and generated serious spontaneous mutations or cancers to fail the safety of their iPSC clinical trial (see CIRM former President Alan Trounson's publications). However, in the end of last year, FDA fast-approved several iPSC products even though FDA has strict regulations regarding any product harboring oncogenes, including Japan's Jun Takahashi's iPSC product CT1-DAP001 for Parkinson's Disease (PD) using his faked iPSC animal study data published in Nature for CIRM alpha stem cell clinics of UCSD to continue repeat his sham iPSC study with California taxpayer money. Without cronyism, without conflicts of interest, without those powerful people like Irving Weissman and Fred Gage sending their students like Emilie Marcus, Maria Millan, Linda Nevin, and many more to those highly-sought positions in top scientific journals and public funding agencies to take control and give themselves preferential treatment, it is hardly imaginable all those shocking things against the code of scientific conduct could ever happen undetected for so long in a scientific world we believed in.

My project TRAN4-17025, titled “A Defined hESC Platform Enabling Large Scale Manufacturing of Clinical-Grade Cardiomyocytes for Heart Regenerative Therapy and Biofabrication” exactly meet the expected outcome for TRAN4 (Tool) outlined in the TRAN Program Announcement that “The expected outcome at the conclusion of a TRAN4 award is to achieve a tool that consistently, robustly, and effectively meets performance characteristics required to address the bottleneck as documented in a comprehensive design history file AND that is ready to be transferred to manufacturing for commercialization.” My project addresses a major bottleneck in regenerative medicine that is lack of scalable human cardiac stem cell source with adequate heart regenerative potential for heart regeneration/repair/replacement and bio-fabrication. The tool is the innovative PluriXcel-SMI-Heart platform to enable highly efficient, direct conversion of non-functional hESC maintained under the defined culture uniformly into a large supply of high quality clinical-grade human cardiac precursor cells (Xcel-hCardP) and contractile cardiomyocytes (Xcel-hCM) by small molecule induction (SMI) for heart regeneration and bio-fabrication [patent: USPTO# 9,428,731], providing a practical scalable technology tool or manufacturing capability to overcome the major bottleneck in the regenerative medicine market. However, CIRM Review Linda Nevin deliberately misinterprets our cutting-edge hESC technology backed by solid scientific data as “describing both a differentiation protocol”, and our life-saving human stem cell product as “the resulting differentiation cells”, therefore neither of these qualify as an eligible tool. Please see below a summary in the proposal.

CIRM Review Linda Nevin has deliberately made CIRM application package and instruction very confusing, and now even using the confusion set by CIRM Review Linda Nevin herself to bias CIRM Review eligibility criteria not found in CIRM application instruction and package. CIRM Review Linda Nevin’s eligibility criteria are inconsistent or contradicting the eligibility criteria in CIRM application instruction and package. “Describing both a differentiation protocol and the resulting differentiation cells” is exactly what CIRM review instructs the applicant to do, nowhere in CIRM application instruction and application package stated doing so would disqualify the application as an eligible tool; if doing so would make the application not qualify as an eligible tool, why could not CIRM Review clearly put it in the application package or instruction? I asked this before, CIRM Review has never clarified nor given me any better instruction. It is a tool application, but CIRM Review instructed the applicant to describe Target Product Profile (TPP), which is for product or cell therapy candidate. I just did what the application package or CIRM instruction said, and I have been wondering why CIRM does that, is that because CIRM Review or CIRM employee lacks any stem cell therapy development knowledge or expertise, or because of their conflicts of interest for who they really work for.

If CIRM Review Linda Nevin thinks our breakthrough world-class hESC cardiac differentiation protocol that exactly meets CIRM eligibility criteria is not eligible, why is Irving Weissman of Stanford University describing his HSC purification protocol and the resulting differentiation cells eligible (TRAN4-16091)? Why is Alysson Muotri of UCSD describing his faked iPSC differentiation protocol and the resulting fabricated differentiation cells eligible (TR2-01814)? Why is Joseph Wu of Stanford University describing his faked iPSC differentiation protocol and the resulting fabricated differentiation cells eligible (TRAN4-09884)? This is totally double standards in CIRM review. At least, our hESC cardiac differentiation protocol is a big breakthrough, addressing a major bottleneck in regenerative medicine, providing clinical-grade translating and scalable manufacturing capabilities, backed by solid scientific data to achieve the expected outcome at the

conclusion of a TRAN4 award that is to achieve a tool that consistently, robustly, and effectively meets performance characteristics required to address the bottleneck as documented in a comprehensive design history file AND that is ready to be transferred to manufacturing for commercialization. Irving Weissman's HSC protocol is neither new, nor addresses any bottlenecks to be eligible for CIRM TRAN4 as stated in the CIRM eligibility criteria of application package, Alysson Muotri and Joseph Wu's faked iPSC differentiation protocol and the resulting fabricated differentiation cells could never achieve the expected outcome at the conclusion of a TRAN4 award that is to achieve a tool that consistently, robustly, and effectively meets performance characteristics required to address the bottleneck as documented in a comprehensive design history file AND that is ready to be transferred to manufacturing for commercialization. Please explain to me how they did make their faked differentiation/purification protocol and the resulting fabricated differentiation cells eligible for CIRM funding, so at least I could do the same.

If the application touched any sensitive issue, all I could think of is to justify fund raising activities of Xcelthera as CIRM requires. The application stated based on facts and actual events to my knowledge, please see below.

The hESC-based prototype Xcel-hNuP (Xcel-hDANP) of PluriXcel-SMI-Neuron Platform has previously been tested using the systemically MPTP-lesioned non-human primate (NHP), the most authentic animal model of the actual human disease not only mimics all of the human symptomatology but also all the side-effects of treatment in CIRM award TR1-01267 to my former mentor Evan Snyder (for my NIH award K01AG024496, titled "Epigenetic controls in hESC dopaminergic fate") to fully evaluate and identify the optimal stem cell type for a cell-based therapy for Parkinson's disease (PD). We compared head-to-head behavioral analysis of stem cell transplanted MPTP-lesioned non-human primate (NHP) for 8 candidates derived from CNS or hESC, and identified the hESC-derived ventral mesencephalic precursor (hVM) I developed and secured patent [USPTO# 8,716,017], now renamed as Xcel-hNuP (Xcel-hDANP) of Xcelthera, as a single developmental candidate for cell-based therapies for PD that showed consistent and dramatic improvement in severely Parkinsonian NHP (i.e., a significant decrease in Parkinsonian symptoms), reflecting a restitution of DA function by these hESC-derived Xcel-hNuP (Xcel-hDANP) (unpublished data, please see CIRM translational award# TR1-01267 on CIRM website [www.cirm.ca.gov](http://www.cirm.ca.gov)). Please also see my previous publications with Evan Snyder for hESC-derived hVM and CNS-derived hNSC candidates compared for cell-based therapies for PD in CIRM award TR1-01267. Part of the NHP study data of the hESC-based prototype Xcel-hNuP/Xcel-hDANP were published in Kirks et al., Nature 2011;480:547-551 by Jeffrey Kordower of Ryne Bio/Kenai Therapeutics and Lorene Studer of Bluerock Therapeutics against the code of scientific conduct, after Evan Snyder's UCSD graduate student Dustin Wakeman, who I had been mentoring on the monkey study for 5 or 6 years, went to Jeffrey Kordower's lab in Chicago for less than half year. Part of the NHP study data of the hESC-based prototype Xcel-hNuP/Xcel-hDANP we hold patent have been used by my former mentor Jean Loring (for my NIH award K01AG024496, titled "Epigenetic controls in hESC dopaminergic fate") and her company Aspen Neuroscience in CIRM CLIN2-15547 for their iPSC product ANPD001, and also by Jean Loring's co-founder, who was never involved in the NHP study, in CIRM CLIN2-14300 for their iPSC product RNDP-001, against the code of scientific conduct, even though they have absolutely no data no protocol no publication to show they could turn iPSC into DA neurons, even though they have no data no protocol no publication to show



they have any iPSC-derived DA progenitor/product that is Nurr1 positive and could generate those primate study data they used in CIRM awards and for FDA approval for their iPSC products.

Bluerock Therapeutics has used their plagiarized preclinical large animal safety and efficacy data of the hESC product of Xcelthera (Xcel-hNuP/Xcel-hDANP of PluriXcel-SMI-Neuron Platform) for their hESC/hiPSC product DA01 against the code of scientific conduct to raise a few hundred million from private investors, which allowed them to sell Bluerock Therapeutics to the big Pharm Bayer for ~\$ 1 billion. My former mentor Jean Loring and her company Aspen Neuroscience have also used their plagiarized preclinical large animal safety and efficacy data of the hESC product of Xcelthera (Xcel-hNuP/Xcel-hDANP of PluriXcel-SMI-Neuron Platform), which we hold patent, for their iPSC product ANPD001 against the code of scientific conduct to raise ~\$250 million private investment. Jean Loring's co-founder and Jeffrey Kordower have also used their plagiarized preclinical large animal safety and efficacy data of the hESC product of Xcelthera (Xcel-hNuP/Xcel-hDANP of PluriXcel-SMI-Neuron Platform), which we hold patent, for the iPSC product RNDP-001 of Ryne Bio/Kenai Therapeutics against the code of scientific conduct to raise ~\$ 80 million Series A private investment. To continue demonstrate COI as CIRM Review required, in fact, during 2017-2020, my former mentor Jean Loring even arranged for me to present my research data to investors or pitch to investors in San Diego Biocom a few times for her Company Aspen Neuroscience to raise hundreds of millions from private investors, including google venture and domain associate, which I was totally unaware of, until a few years later (~2022) CIRM asked me to demonstrate COI for my CIRM PD application. Somewhere between, I even received emails from those involved in the pitches, and found out they were all no longer with Biocom, which I thought was very weird at that time. Domain associate was my website that soon lost all my web content and told me they could not find it for a couple of years, which forced me have to start a new website. I wonder who was at google at that time. I am sure you all know it was another Duke professor and our dear FDA commissioner Robert Califf, which explains why FDA fast-approved several iPSC products last year despite its strict regulations regarding any product harboring oncogenes, including Japan's Jun Takahashi's iPSC product CT1-DAP001 for PD using his faked iPSC animal study data published in Nature for CIRM alpha stem cell clinics of UCSD to continue repeat his sham iPSC study with California taxpayer money, and Jean Loring's iPSC product ANPD001 for PD using her plagiarized preclinical animal safety and efficacy data of the hESC product of Xcelthera in CIRM CLIN2-15547.

Xcelthera is founded to leverage stem cell therapy and regenerative medicine development and manufacturing innovations to provide the next generation of cell-based therapeutic solutions for unmet medical needs in world-wide major health problems. The Company is a major innovator in the stem cell research and regenerative medicine market, and the first to hold the Intellectual Property (IP) for large-scale production of high quality clinical-grade human pluripotent stem cell lines (hPSC) and their functional human neuronal and heart cell therapy products for commercial and therapeutic uses, including USPTO patent # 9,428,731; # 8,716,017. The Company's PluriXcel human stem cell technology platforms provide proprietary clinical-grade translating and manufacturing capabilities to address key challenges to traditional medicine and biofabrication, and offers currently the only available human cell sources in large quantity and high quality with adequate cellular capacity to regenerate the contractile heart muscle and the neuron circuitry, overcoming major bottlenecks for tissue repair and biofabrication, including: PluriXcel-DCS (defined culture system) Platform;

PluriXcel-SMI (small molecule induction)-Heart Platform; PluriXcel-SMI-Neuron Platform. All 3 Companies Bluerock Therapeutics, Aspen Neuroscience, Ryne Bio/Kenai Therapeutics have no patent no technology, but have raised hundreds of millions from private investors using their plagiarized preclinical large animal safety and efficacy data of the hESC product of Xcelthera (Xcel-hNuP/Xcel-hDANP of PluriXcel-SMI-Neuron Platform) for just one disease PD. The hESC-based PluriXcel Platforms of Xcelthera, including PluriXcel-DCS, PluriXcel-SMI-Neuron, and PluriXcel-SMI-Heart Platform of this project, could be translated to enable broad use, and ultimately, improve patient care. The hESC-based prototypes of PluriXcel Platforms have broad applications for a wide range of incurable or hitherto untreatable neurological diseases and injuries, including stroke, Parkinson's disease (PD), Alzheimer disease (AD), spinal cord injury (SCI), traumatic brain injury (TBI), amyotrophic lateral sclerosis (ALS), spinal muscular atrophy (SMA), as well as heart diseases and failure, which have much bigger market size of unmet medical needs, and if success for any disease, will have tremendous economy and health impact and bringing enormous benefit to diverse population. Therefore, the likelihood of fundraising success based on the company's prior fundraising activities and from similar companies is very high.

Project summary: We have built a key innovative PluriXcel-SMI-Heart platform to enable highly efficient, direct conversion of non-functional hESC maintained under the defined culture uniformly into a large supply of high quality clinical-grade human cardiac precursor cells (Xcel-hCardP) and contractile cardiomyocytes (Xcel-hCM) by small molecule induction (SMI) for heart regeneration and bio-fabrication [patent: USPTO# 9,428,731], providing a practical scalable technology tool to overcome the major bottleneck in the regenerative medicine market. To achieve the expected outcome of the tool PluriXcel-SMI-Heart platform that consistently, robustly, and effectively meets performance characteristics required to address the bottleneck, we will (1) continue to optimize the PluriXcel-SMI-Heart platform for scale-up production of high-quality clinical-grade Xcel-hCardP and Xcel-hCM adequate to address the unmet medical need of heart disease and failure by analysis of marker expression and human cardiomyocyte (hCM) differentiation efficiency and profiling of hCM characteristics and contractile function, Milestone: >90% positive to cardiac precursor markers and yield hCM, but negative (<1%) to pluripotency and non-cardiac markers and yield no inappropriate cells; (2) develop an initial commercialization plan for the tool PluriXcel-SMI-Heart platform and manufacturing plan for the products Xcel-hCardP and Xcel-hCM, Milestone: the tool is ready to be transferred to manufacturing for commercialization.