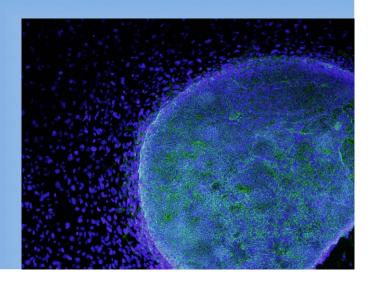


The Promise on Hold: The Impact of the NIH Stem Cell Funding Freeze

Presented at: 2010 World Stem Cell Summit

October 4, 2010

Geoffrey Lomax Dr. PH glomax@cirm.ca.gov www.CIRM.ca.gov



Survey Design

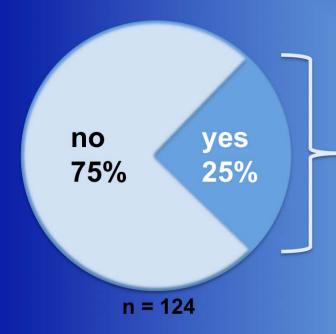
- Web-based survey
- Open- and closed-ended questions n = 10
- Designed to evaluate specific impacts of NIH-funding freeze and general impacts on stem cell research
- Conducted between August 26 September 7
- N = 255 Current and former Pls invited to participate
- N = 126 Respondents (126/255 = 49%)



Proportion of CIRM Grantees with NIH Funding



Have you ever received NIH funding to perform human embryonic stem cell research (hESC) – research covered under prior presidential orders or the NIH Guidelines for Human Stem Cell Research?



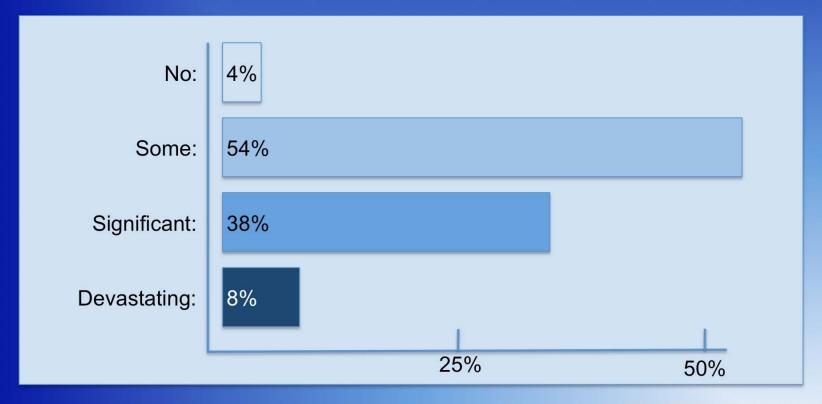
- 25% (n=31) of respondents performed NIH-sponsored hESC research
- Average total value \$1.9 million
- Represents 10 100% of PI funding



General Impacts of NIH-funding freeze



Please characterize the impact of the NIH funding freeze on your hESC research program in general.

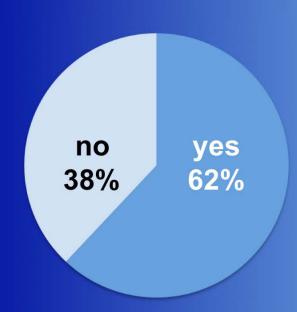




Human Resources Impacts of NIH-funding freeze



Assuming a prolonged NIH funding freeze will you need to reduce or eliminate positions absent any new funds becoming available?

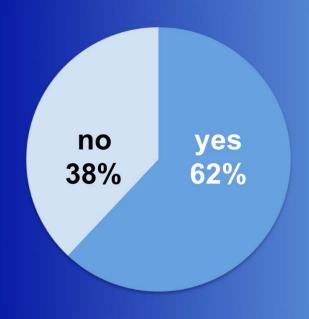




Human Resources Impacts of NIH-funding freeze



Assuming a prolonged NIH funding freeze will you need to reduce or eliminate positions absent any new funds becoming available?



"I am just devastated, yet trying to be creative and optimistic to generate new funds for my research program and the investigators I am training."



Human Resources Impacts of NIH-funding freeze



Please estimate the types of positions and impact you anticipate.

Type of position	Position or appointment potentially: Eliminated Reduced*	
Principal investigators	0	2
Post doctoral researchers	11	5
Pre-doctoral researchers	6	8
Other researchers/technicians	10	8
Support staff	6	7

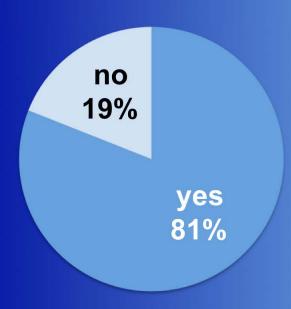
^{*} Note figures represent the number of respondents reporting impact (not actual number of positions)



Impacts of NIH-funding on all Stem Cell Research



Will the loss or reduction in these positions impact your ability to conduct stem cell research that does not involve the use of hESCs (e.g. iPS experiments, adult stem cell research)?

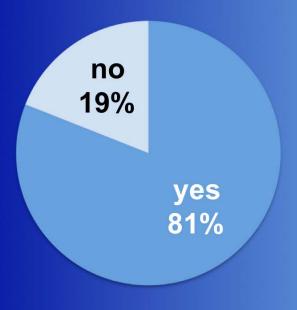




Impacts of NIH-funding on all Stem Cell Research



Will the loss or reduction in these positions impact your ability to conduct stem cell research that does not involve the use of hESCs (e.g. iPS experiments, adult stem cell research)?



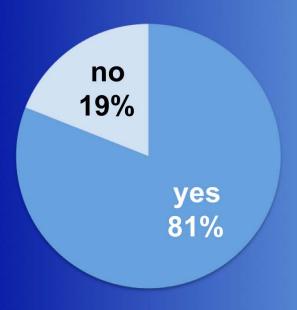
"This funding freeze has the potential to adversely affect all areas of medical research in which stem cells have potential for improving disease understanding and treatment."



Impacts of NIH-funding on all Stem Cell Research



Will the loss or reduction in these positions impact your ability to conduct stem cell research that does not involve the use of hESCs (e.g. iPS experiments, adult stem cell research)?

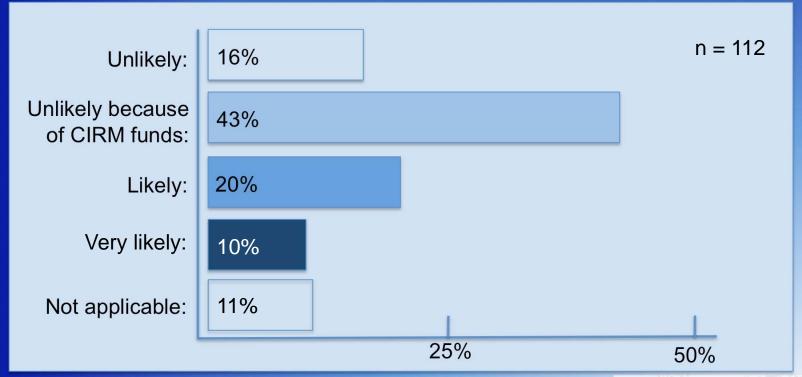


"All stem cell research will be hindered by banning research on ES cells. We need to study ES cells in parallel with all other types of cells used in regenerative medicine, as they inform one another. The two go hand in hand."



Impacts on hESC Research Overall

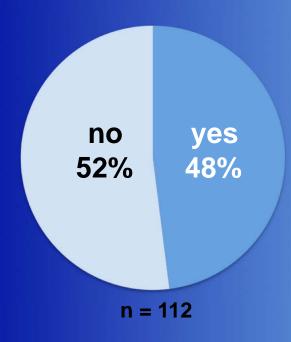
How likely are you to shift away from or otherwise reduce your commitment to research involving human embryonic stem cells?





Impacts on Collaborators

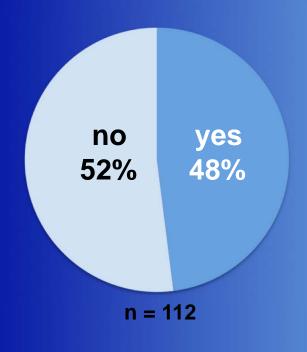
Do you have collaborations with other investigators who are supported by NIH research grants covered under the NIH Guidelines for Human Stem Cell Research?





Impacts on Collaborators

Do you have collaborations with other investigators who are supported by NIH research grants covered under the NIH Guidelines for Human Stem Cell Research?



"It will be researchers in states that have no outside funding sources who will suffer the most."



Comments

"Any new field of biomedical research having enormous potential requires investment to produce a useful return. The sheer breadth and depth of research that is required to convert the potential of stem cell research into reality can only be facilitated by Federal funding. For this to be derailed, even temporarily, on a dubious legal basis that seeks to overturn a previous Presidential order does disservice to the millions of people living with injuries or disease states that could benefit from such research."

"Hardcore, basic research necessary to make stem cell therapies as safe as possible. Fewer labs will be able to independently validate data and possible clinical trials will have a much softer scientific basis."



Comments

"To numerous to list all repercussions here, but simply being able to compare ES, to iPS to adult cells and understand what makes them different, what line is best suited for what translational problem is the first big problem that comes to mind. But also all the wasted talent and effort, all those "could-have-beens" that will never get started because the atmosphere is simply too toxic."

"I am glad that my human ES cell research is funded through CIRM"





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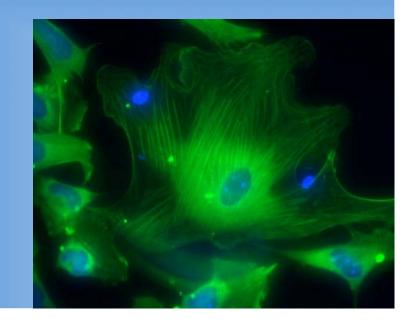


Photo was taken in the lab of Alexey Terskikh.