

Re: Written testimony in support of the New York State Stem Cell Science (NYSTEM) program

To whom it may concern,

I am an Associate Professor at Columbia Stem Cell Initiative, Department of Rehabilitation and Regenerative Medicine, Department of Microbiology and Immunology, Columbia University Irving Medical Center. I am writing to express my concerns regarding the proposed termination of the NYSTEM program. I believe that termination of the NYSTEM will do more harm than good to people in the New York state and beyond.

Better health care comes from technical innovation, which is rooted from basic research. Stem cell science has been a fast-growing research area in recent years and led to a number of revolutionary medical innovations, such as understanding and treating leukemia, macular degeneration, Parkinson's, and other devastating diseases. This is exactly the kind of excitement that drew me into a stem cell research career, because I, as well as many others, believe stem cells are the key to medical innovations. In the middle of the current COVID-19 pandemic, stem cell research has also significantly changed the way we understand and treat this disease. Scientists are modeling COVID-19 using stem cell-derived lung tissues to search for novel therapies. The examples are endless. Behind these innovations, NYSTEM has been the anchoring program promoting stem cell research in the past years and directly resulted in many of these innovations in the New York state. It is not exaggerating to say that it is NYSTEM that puts New York at the cutting edge of stem cell science. If the NYSTEM program is terminated, many of the innovations would not be possible or severely delayed. I want to remind you that it will cost a lot more to rebuild the program in the future than maintain an active one now.

In my own lab, we study blood-forming stem cells. These are the cells that generate all blood and immune cells in our body and have broad implications in the clinics. We have been studying these stem cells to promote efficient use of them in clinics. In response to last summer's RFA, based on promising preliminary data, members in my lab and I have put in weeks of work to submit grant applications to the NYSTEM program. If the program is terminated, all of the efforts will be wasted. More importantly, our promising research has to be postponed or canceled altogether.

I really hope that you will seriously reconsider the proposal of terminating the NYSTEM program. The NYSTEM program has had and will continue to have its positive effect on the people of the New York state and beyond for years to come.

Sincerely,

Dingle:

Lei Ding, PhD

**Associate Professor** 

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Department of Rehabiliation and Regenerative Medicine

Department of Microbiology and Immunology

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