

Program in Cellular and Molecular Medicine

at Children's Hospital Boston

Immune Disease Institute



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Dear colleagues,

I infer from the fact that you've order plasmids from Addgene that were deposited by my lab that you have an interest in using modified-mRNA to reprogram human fibroblasts to pluripotency according to the protocol described in the paper my lab published last year in Cell Stem Cell (Warren et al 2010). I therefore wanted to reach out to you to inform you of a significant change to the protocol that has come to light. In our original report we did all our reprogramming in Nutristem media (manufactured by Stemgent) -- after having tested many medias, this media was the most supportive of RNA programming. However, we (and others) have since discovered that there is very significant lot-to-lot variation with this media and **all** recent lots have been entirely unresponsive of RNA reprogramming. Stemgent has been charged with developing a RNA programming kit based on our technology and they too have discovered the problems with Nutristem. To overcome this, they have developed another media, Pluriton, that is once again robustly supportive of modified-mRNA reprogramming. We and others have confirmed this. I would therefore urge you to abandon the Nutristem media and use the Pluriton media for your RNA reprogramming experiments. The protocol as originally published is otherwise unchanged.

It is unfortunate that the Nutristem media was not a reliable product – my obvious hope is that the Pluriton media will prove to be a more consistent reagent. In light of this latter point, my lab is currently developing and testing a completely chemically defined media for RNA reprogramming, and when this media is thoroughly tested, I will be happy to let you know its composition so that you may consider using it for your experiments.

Sincerely,

Derrick J. Rossi