Science Ama Series: Hi Reddit! I'm Brian Hanley, PhD and CEO of Butterfly Sciences. I work on gene therapies (and vaccines) and I am a subject in my GHRH clinical trial. AMA!

Brian_Hanley r/SCIENCE

Hi Reddit! I'm Brian Hanley, PhD and CEO of Butterfly Sciences, in Davis CA. I work on gene therapy approaches to aging, HIV/AIDS, adaptation to space, and the future.

I designed a system that should be able to rescue late-stage AIDS patients, and GHRH was part of that. However, VCs told me that pharma wouldn't buy the company because they had drugs for HIV/AIDS and the pharma business model is daily consumption of drugs. Pharma does not like the "surgical model". I was aware of the potential for health-span extension from the start, and decided to emphasize that. This trial is in its 2nd year, and results look quite promising. However, the same pharma business model issues apply to most of gene therapy.

I was recently featured on MIT Technology Review magazine https://www.technologyreview.com/s/603217/one-mans-quest-to-hack-his-own-genes/

I have other motivations for thinking gene therapy is important. I think that we will need it to adapt to settlement of space and other planets. From radiation adaptation and virtual elimination of cancer, to preventing osteoporosis and muscle breakdown, space will be a frontier for gene therapy. I also think it is a way we can use to change our age-bulge demographic problem. When social security was first created, there were around 6 working adults for every retired person being supported. Now, we are heading towards 2. Gene therapy has the potential to change the infirmities of old age and make people strong for life.

I will be back at 2 pm ET, Ask me anything about gene therapy and how it can be used in space settlement, to treat age-related health issues and HIV/AIDS. (Caveat - I cannot respond to personnel questions, nor can I give out proprietary information.)

The AMA is still in progress
as a white paper.

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