Podcast: If you get a COVID vaccine, you're pro-GMO; 5G conspiracies; Lab-grown humans?

All the approved COVID-19 vaccines were developed with the help of genetic engineering. If we rely this technology to end a pandemic, we should accept that it can be safely used in food production. New York state is investigating the supposed risks associated with 5G technology, but there's no evidence of harm to investigate. Current regulations prohibit scientists from studying human embryos in the lab after 14 days. Researchers want that two-week rule abolished. What are the implications of such a change?

Join geneticist Kevin Folta and GLP editor Cameron English on this episode of Science Facts and Fallacies as they break down these latest news stories:

- **Viewpoint: COVID-19 vaccine succss should prompt us to rethink our fear of GMO 'Frankenfoods'**

We can say a few things with confidence about the approved COVID-19 vaccines. They're safe and effective in most circumstances, and they were all developed with genetic engineering. But these observations raise an important question. If roughly 70 percent of us are willing to inject ourselves with biotech-based vaccines, how can we possibly be scared of food enhanced with the same technology?

- **Viewpoint: Will 5G harm you? Activist groups succeed in stirring conspiracy health risk phobias, as New York State legislature prepares to debate 'growing evidence' of harm**

A growing body of evidence indicates that 5G technology doesn't pose a risk to public health. In fact, too much sunlight likely poses a greater cancer threat than radiation associated with the new wireless technology. Yet post-COVID, concerns about 5G have proliferated, even catching the attention of legislators who have promised to "investigate" the situation. The ultimate problem seems to be that humans just aren't very good at evaluating the risks we face every day. This deficiency leads us to fear relatively safe technologies while exposing ourselves to potentially much greater harms.

"[W]hat needs to be realized," says cancer epidemiologist Geoffrey Kabat, "is that there are degrees of risk, and the goal is to ensure that any risk is below the level of what we normally accept in everyday life. We accept some degree of risk every time we get in a car, drink a glass of wine, or take a painkiller or prescription drug."

- **Human embryo research restrictions: Scientists move to drop 14-day limit on research**

For decades, human embryonic research has been governed by the so-called 14-day rule. This restriction dictates that embryos must be destroyed after two weeks, sending a clear signal to the public that no one

is trying to grow humans in a laboratory and giving scientists a clear guideline by which to conduct their research. But that was before massive technological breakthroughs were achieved. It's now possible to construct artificial embryo models from stem cells, for example, and a growing coalition of experts is calling for the rule to be abolished so they can better study, and perhaps manipulate, human development.

Though potentially very promising from a biomedical perspective, the policy change could spark serious ethical dilemmas down the road. For instance, if we can keep embryos alive in a lab up to when they begin developing a head, beating heart cells, or the beginning of limbs, could it change how we regulate abortion?

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