GLP podcast and video: ChatGPT more empathetic than doctors? How ideology corrupts science; Testing drugs on mini-organs, not animals

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s ChatGPT more empathetic than your doctor? A recent study seems to suggest so. An emerging consensus of scientists is alarmed about falling sperm counts in western countries; their critics say that's a racist idea and should be discarded. Should we quit testing new drugs on animals and replace them with "cruelty-free" mini organs on microchips?

Podcast:

Video

Join guest host Dr. Liza Dunn and GLP contributor Cameron English on episode 217 of Science Facts and Fallacies as they break down these latest news stories:

• Al medical assistants? ChatGPT answers patient questions with more empathy than human doctors

All chat bot <u>ChatGPT</u> gave more empathetic and detailed answers to patient questions 79 percent of the time compared to doctors responding to the same questions, according to a recent study. While the research is preliminary, it seems to suggest that artificial intelligence, properly calibrated and regulated, could help physicians provide more personalized care at a time when giant stacks of paperwork and other administrative tasks cut the amount of attention they can give their patients. Are there any pitfalls that could limit Al's usefulness in medicine? And how do health care providers avoid them?

• Are endocrine-disrupting chemicals causing a decline in fertility in men? Here's how ideology corrupts evidence-based science

Evidence gathered in recent decades seems to indicate that sperm counts among men in western countries are falling to alarming lows, exacerbating already declining global fertility rates. Scientists still aren't sure what's to blame for falling sperm counts, though some commentators have addressed the issue by simply denying that it exists. All the concern about sperm counts in the west "has deep roots in white nationalist discourse," a pair of philosophers from MIT and Harvard have asserted. As a result, they continue, we should reject the science behind declining sperm counts because it has political implications that are currently unfashionable. Is this skepticism justified, or is it just another example of ideology corrupting our understanding of biology?

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• 'Cruelty-free' lab-grown mini-organs could dramatically reduce need for animal testing

Most human medicines are first tested on other animals to ensure their safety and efficacy. Although this makes sense from a public-health perspective, some critics have complained that this method of drug testing needlessly jeopardizes animal welfare. They say novel medicines should be tested on tissue chips, which can mimic the structure and function of human organ systems. Many scientists have dismissed this possibility. "[A]dvances on alternative methods have not progressed enough for a complete phasing-out" of animals, the widely respected Max Planck Society has argued. These "alternative methods" are still inadequate substitutes for complex human organs—the brain, for example—and are not yet fit for testing powerful drugs before they reach consumers.

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