Podcast: Jamie Metzl's 'Hacking Darwin'—The end of sex and humanity's genetically engineered future

Imagine a world in which would-be parents no longer have sex but conceive children with the assistance of embryo selection and in-vitro fertilization, (IVF) choosing genetic traits to make their children smarter, stronger and healthier than sexual reproduction would otherwise allow. People would still have sex for all the other reasons we do now, but these next-generation assisted reproduction tools would revolutionize health care and possibly change the future of human evolution.

This isn't just a hypothetical scenario out of a science fiction novel; this will be our world beginning in the next three decades, according to science writer Jamie Metzl, author of the new book <u>Hacking Darwin:</u> Genetic Engineering and the Future of Humanity.

Since 1978, over <u>8 million people</u> have been conceived with in-vitro fertilization, and parents can already screen embryos for <u>single-gene disorders</u>—including cystic fibrosis, Huntington's disease, Tay-Sachs and sickle-cell anemia— caused by mutations in the DNA sequence of a specific gene. But by roughly 2045, Metzl argues, many more parents will skip sexual reproduction and opt to screen their embryos for these genetic conditions, motivated by lower costs and the prospect of disease-free children. As our knowledge of genetics grows in the proceeding decades, parents will begin screening embryos for more complex and controversial genetic traits like height, intelligence and physical strength.



Jamie Metzl

Society will be forced to confront some <u>awkward ethical questions</u> as we begin to utilize these assisted reproduction tools en masse. What happens, for example, if this technology spurs a designer baby industry that commodifies human life? Furthermore, will we ostracize parents who chose to reproduce sexually, thus leaving their childen more vulnerable to deadly diseases? Perhaps most troubling, how will we stop totalitarian governments from using this technology oppressively?

On this episode of Biotech Facts and Fallacies, GLP's Cameron English sits down with Metzl to discuss

how society should approach these evolving assisted reproduction technologies. Although these powerful tools could be misused for nefarious purposes, Metzl argues they also promise to dramatically improve our quality of life and should be carefully regulated and embraced by informed consumers.

Subscribe to the Biotech Facts and Fallacies podcast on iTunes.

Jamie Metzl is a science writer, novelist and senior fellow at the Atlantic Council. He holds a Ph.D. in Asian history from Oxford and a JD from Harvard Law School. Follow him on Twitter @ JamieMetzl and visit his website.

<u>Cameron J. English</u> is the GLP's senior agricultural genetics and special projects editor. He is a science writer and podcast host. Follow him on Twitter @camjenglish