

Life science businessmen predict genetically enhanced athletes will soon compete in the Olympics

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Image: Wikimedia.

(Medical Xpress) -- The journal *Nature* has begun publishing a series of commentary piece articles related to the sciences as they apply to the Olympics.

One, for example is by an <u>epidemiologist</u> considering the infectious disease implications of the sudden onrush of millions of people to a single two week event. Another author wonders if there shouldn't be more variety in the kinds of Olympic Games that exist. He suggests that perhaps there ought to be a separate set of games where the athletes are free to use whatever performance enhancing drugs they wish, just to see what feats they might be capable of achieving. Perhaps more realistic is



a commentary piece by Juan Enriquez and Steve Gullans, managing directors of Excel Venture Management, a group that builds companies around life science technologies. They suggest that like it or not, people with performance enhancing genetic alterations will likely very soon be competing against one another in the Olympics.

As it stands right now, the governing body of the Olympics has specifically outlawed the use of <u>genetic engineering</u> to enhance the performance of athletes participating in the games, insisting that it would give some of them an unfair advantage. The ruling is also an attempt to keep the games as safe as possible for athletes, even if it means preventing them from trying unproven genetic alterations.

But, the authors argue, that won't be the case for long. New research has found for example, that certain athletes have a 577R allele in their ACTN3 gene which has been found to contribute to better running ability. It's been found in virtually all male Olympic caliber runners and appears in 85% of people of African descent and 50% of those of Asian or European descent. Thus an argument could be presented that some people of a certain race have an unfair advantage and that others should be allowed to use genetic manipulation to level the playing field.

They also present an argument based on philosophical or ethical questions. What happens they say, if a genetic engineering procedure is discovered that will allow people to live longer with a better quality of life? Would Olympic athletes have to forfeit such a benefit if they wanted to be allowed to compete? At present, it would seem so, but that's likely only because such a procedure hasn't actually been developed yet.

As more research is conducted the authors write, more genetic variants will almost certainly be discovered that give different people different advantages in different sports. How will such information be used, and



by whom? And how will those who make the rules on who can compete and who can't ever decide? At some point, they argue, the science will overwhelm the ability of authorities to govern the use of genetic enhancement which will lead to widespread use of genetic engineering to create what will most assuredly be, super athletes.

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