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Gene doping: of mice and men.

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Gene doping is the newest threat to the spirit of fair play in sports. Its concept stemmed out from legitimate gene therapy trials, but anti-doping authorities fear that they now may be facing a form of doping that is virtually undetectable and extremely appealing to athletes. This paper presents studies that generated mouse models with outstanding physical performance, by manipulating genes such as insulin-like growth factor 1 (IGF-1) or phosphoenolpyruvate carboxykinase (PEPCK), which are likely to be targeted for gene doping. The potential transition from super mice to super athletes will also be discussed, in addition to possible strategies for detection of gene doping.

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