

GENETICS

# DETECTING REPOXYGEN INFECTION

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Doping rules are sometimes hard to understand. Sleeping in a low pressure chamber and training at high altitudes is allowed but taking epo is not – although net effects may be the same.

This might be a reason why some athletes are now trying to mimick more closely biology. [Repoxygen](#) is a viral vector known for some time that includes the human epo gene under control of a hypoxia control element. Clearly this drug has the potential to be used for doping (“[Outlaw DNA](#)”).

Any abuse may be immediately detected if the delivered gene sequence is not 100% identical to the human sequence (for example by resequencing the introns or looking for other remains of the viral vector<sup>9</sup>). I warn you, however, to do any experiments as infected blood cells removed from the body for a doping test will show hypoxia stress and let them produce additional epo ... More seriously, read the [Gelsinger](#) story.

Today is the day of free advice and here is my free advice: 1. An A sample is an A sample 2. Believe in what people say but not in lab results 3. They would not call it an A sample if there would not be a B sample 4. Doping is only proven with A + B sample 5. Even then may be open questions 6. do not accuse anybody without knowing the details and 7. doping is unacceptable, yea, yea.