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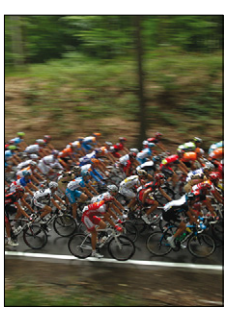
The biological passport and doping in athletics

The head of the French anti-doping agency (AFLD) has questioned the effectiveness of the biological passport to detect doping at the Tour de France, which started on July 3.[1] A biological passport monitors an athlete's blood and body chemistry values over time to assess whether there has been a deviation from an established baseline, thus indirectly detecting illegal manipulation.[2]

Implemented by the International Cycling Union for the 2008 cycling season and approved for widespread use by the World Anti-Doping Agency (WADA) in December, 2009,[3] the biological passport was criticised by AFLD's Pierre Bordry, who says cyclists consistently taking small amounts of doping substances can go undetected.[1] Although Bordry's comments have merit and will need to be taken into consideration as the biological passport system is modified over time, the biological passport might well prove to be an improvement over the traditional method of direct detection of doping. Traditional tests have searched for direct evidence of known doping agents, but the biological passport can look for changes from baseline that might result from doping, even if the specific drug or tactic is unknown.[2] Some drugs, such as erythropoietin, which increases erythrocyte production, can only be detected for a few days, but the performance benefits last for weeks,[2] producing a suspicious blood profile indicative of previous use of erythropoietin. Also, traditional tests compare concentrations of a banned substance with averages for an entire population, but the biological passport's emphasis on many readings from an individual should make it easier to catch a doped athlete.[4]

The biological passport is a breakthrough in the anti-doping fight, and WADA's Athlete Biological Passport Operating Guidelines should be implemented by all anti-doping organisations. Monitoring biological variables that indirectly reveal the effects of doping should make it more difficult to take banned substances.[3] The biological passport has already been used against elite cyclist Franco Pellizotti, who won the prestigious honour of being the best mountain climber in last year's Tour de France, to keep him out of the Tour of Italy in May.[2] In advance of the London 2012 Olympics, it is encouraging to see that all UK athletes will receive biological passports.[4] The UK's example should be followed by all countries participating in the 2012 Olympics in the effort to combat doping in athletics.



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I declare that I have no conflicts of interest.

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