

Anti-doping expert warns cheating athletes

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Professor David Cowan, Director of the Drug Control Center at King's College London, has warned athletes who take prohibited performance-enhancing substances that the London 2012 Olympic and Paralympic Games will be the 'riskiest yet.'

GlaxoSmithKline (GSK) and King's College London have formed a ground-breaking partnership to deliver the anti-doping testing during the London 2012 Olympic and Paralympic Games, at a World Anti-Doping Agency (WADA) accredited satellite laboratory in Harlow.

The laboratory will carry out around 6,000 urine and [blood](#) tests during the Olympic games, and a further 1,400 during the Paralympics, more than any previous Games.

Speaking at the British Science Festival, Professor Cowan talked about the science behind anti-doping, and the new tests that are in development to catch cheating [athletes](#). In particular, an improved test to detect Human Growth Hormone and a new way of detecting autologous blood [doping](#).

Autologous blood doping is when an athlete stores and transfuses their own blood back into the body. It increases the number of red blood cells and gives a boost to an athlete's endurance by allowing them to carry more oxygen to the muscles.

The test currently in development will be based on changes present in RNA – a single strand version of DNA that is found in the body.

Professor Cowan said: "We've been looking at the different RNA that is present and been able to identify those that are clearly changed in stored blood."

It is hoped that the test will be ready in time for next year's Games.

"This will be the riskiest Olympic Games yet for athletes who decide to cheat. The message is clear; if you cheat, we will catch you," he concluded.

GSK and WADA have also recently announced that they will share information on new drugs in development that they think could be misused by athletes in the future, so appropriate tests can be developed as soon as possible to detect their misuse.

At the Festival, Professor Cowan spoke alongside Professor Ron Maughan from Loughborough University, Pauline Williams, an R&D expert from GSK and Nicola Newman, Director of Communications and Education at UK Anti-Doping.

Provided by King's College London

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