

# Enhancing the performance, masking the effects

## VIBE REPORTER

**T**HE Clenbuterol Olympics, Bromantan Olympics, The GH (Growth Hormone) Games, The Steroid Pan Am Games, the EPO Tour de France, the Tour des Drugs.... these are just some of the names given to major sporting events dogged by allegations of extremely unsporting behaviour by athletes who put a gold medal ahead of both health and honest performance.

Indeed, a spokesman for Wada (the World Anti-Doping Agency) is on record as saying that terrorism and doping are the greatest threats to the Olympic Games and the Olympic Movement as we know them.

South African pathologist Dr Leentjie van Niekerk, a member of the National Pathology Group (NPG), said that the Olympics are a time when athletes risk it all for glory.

"There are hundreds of drugs, designed for legitimate use,

which can be utilised by unscrupulous coaches and their athletes to enhance performance in the search for a gold medal," she said.

One such drug is the steroid THG (tetrahydrogestrinone). Although it has been identified, it is still undetectable in drug tests, and there may be similar drugs in circulation right now which have not yet been detected.

"Drug abuse in sport is a moving target. As quickly as laboratory methodologies improve and enable us to identify new drugs, so players on the wrong side of the law react by designing or adapting new drugs to enhance performance," Dr van Niekerk said.

The good news for SA sport is that South Africa hosts one of only 32 internationally-accredited IOC drug-testing laboratories worldwide - the SA Doping Control Laboratory affiliated to the Department of Pharmacology at the University of the Orange Free State in Bloemfontein.

In order to have an athlete tested for doping, a club must apply to the relevant sports federation, which must in turn apply to the SA Institute for Drug-Free Sport, which will then authorise the laboratory to perform the test. This protects both the athlete and the sport.

An IOC-accredited laboratory may only test samples from bona fide sports programmes.

Individual athletes may not request test on themselves, as this could aid and abet unscrupulous people seeking to learn how the tests work.

Categories of banned drugs include stimulants, narcotics, cannabinoids, anabolic steroids, peptide hormones, beta-2 antagonists, agents with anti-oestrogenic activity and glucocorticosteroids.

Prohibited methods include enhancement of oxygen transfer, pharmacological, chemical or physical manipulation, and

gene doping.

Of concern is the fact that some of these drugs are available over the counter as "natural supplements". Many are used by gym fanatics to build muscle bulk. Mr Volker Schillack, a colleague of Dr van Niekerk's, points out that despite the fact that many of these pro-hormones are legal in both America and South Africa, they are made up of substances banned for use by amateur and professional sports competitors.

"The problem is that many consumers - and athletes - aren't aware of the contents of these products because the law does not require that the manufacturers specify the contents. One commonly used product is androstenedione. It may be contaminated, causing a positive urine test result indicative of nandrolone use," he said.

Nandrolone is a banned steroid.

Anabolic steroids can have life

threatening side effects, including high blood pressure, elevated lipid levels, and acute liver damage. They can also cause infertility, loss of libido, severe acne, and mood swings which could result in irrational and aggressive behaviour.

Success in a particular sports discipline is affected by genetics (ethnicity, body type) as well as age and training programmes. There is a growing concern amongst scientists that parents will start designing babies in the womb for sports success.

"We are now more aware than ever before of which genes will support performance. The technology is available to "rewrite" your genetic code and insert genes that produce performance enhancing hormones that are indistinguishable from natural hormones," said Dr van Niekerk.

Currently, education and high ethical standards are the only protection against such tactics.