

## Passport control to prevent athlete doping

Winter Olympians will be bringing two types of passport to Vancouver this month: one is the typical booklet embossed with a country's logo, but the other is the athlete's own body.

In December, the World Anti-Doping Agency (WADA) introduced guidelines for the athlete biological passport (ABP)—the latest strategy against performance-enhancing drugs. Now, aside from urine samples, Olympic athletes will also submit periodic blood samples that are analyzed for eight characteristics, including counts for hemoglobin and red blood cells.

WADA guidelines call for further inspection of an athlete if abnormal values are seen for any of these eight traits or a statistical value derived from their analysis. Whereas WADA is fairly conservative, using a high measure of statistical significance, individual

sport organizations can be stricter, setting a lower threshold for what is considered abnormal, and handle the suspicious activity themselves.

The International Skating Union, for example, penalized German skater Claudia Pechstein last February with a two-year ban after the World Speed Skating Championships in Norway. During the event, Pechstein recorded concentrations of reticulocyte—the immature form of red blood cells—twice those she had a week later. Pechstein contested, but the Court of Arbitration for Sport in Lausanne, Switzerland upheld the ban in the first conviction under the ABP method.

Because of the thoroughness of the analysis, the chance of a false positive is “zilch, next to nothing,” says WADA director general David Howman. Instead, a false negative

is much more likely, given the conservativeness of the test, he says.

For that reason, WADA is researching a more expansive test that takes into account markers from the endocrine system, including insulin-like growth factor-1 and type 3 procollagen—both of which show elevated concentrations after human growth hormone administration.

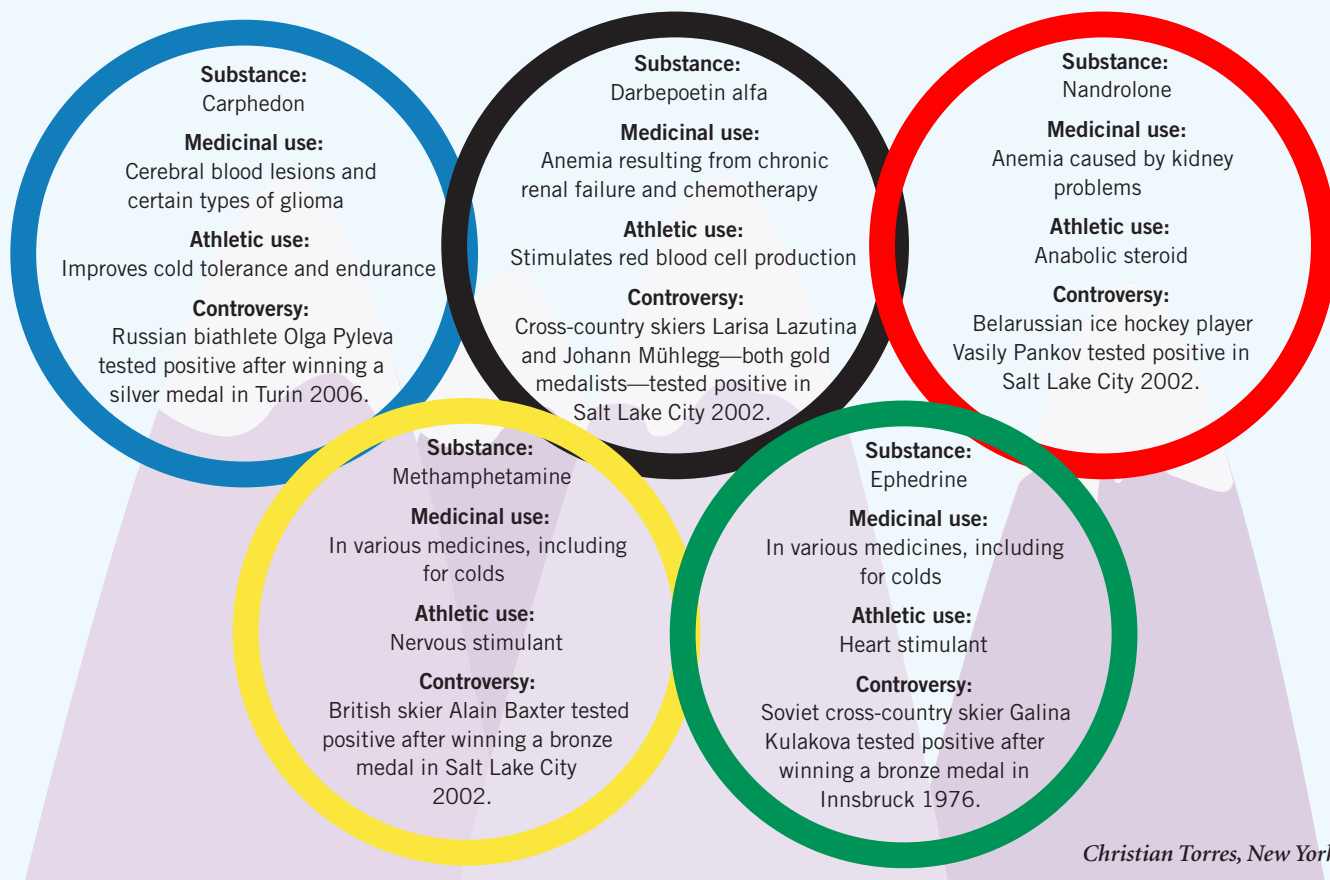
Howman says he would like to see the more advanced biological passport put into effect as soon as possible—ideally, in time for London 2012.

*Christian Torres, New York*



## Doping at the winter games

Marijuana is so widely sold in Vancouver, the host of this year's Winter Olympic Games, that the city has earned the nickname 'Vansterdam'. But Olympic officials will be on the lookout for other sorts of drugs this month—prescription medicines that have been co-opted by athletes to gain an edge. Here are a few of the substances caught at past Winter Games that you might see again in Vancouver.



*Christian Torres, New York*