Faster, more efficient method for detecting illegal steroids in urine

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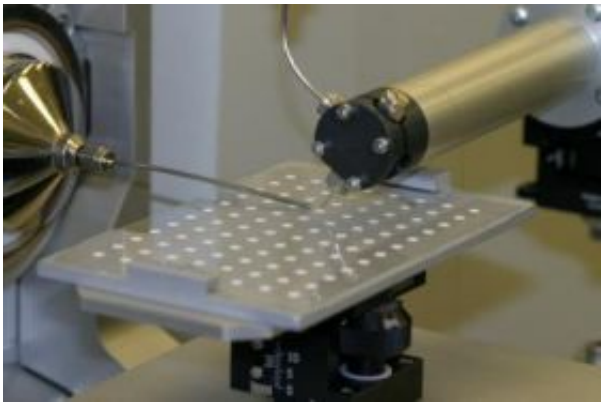

This instrument provides a faster, more efficient method for detecting illegal steroids in urine. Credit: Courtesy of Zheng Ouyang, Purdue University

Amid growing concerns about sports “doping,” researchers in Indiana and China report development of a faster and more efficient method for detecting the presence of illegal anabolic steroids in urine. Their new method, which takes only a few seconds and involves no time-consuming sample preparation, will be described in the Nov. 1 issue of ACS’ *Analytical Chemistry*.

The study notes that use of banned substances by professional athletes to build muscle and gain a competitive advantage is a growing problem in sports such as track and field, baseball, football and cycling. Although effective methods exist for detecting the presence of illegal steroids in

urine, current methods are time-consuming and involve cumbersome preparation steps.

Zheng Ouyang, R. Graham Cooks, and colleagues developed a new steroid-testing method that combines two state-of-the-art testing techniques called desorption electrospray ionization (DESI) and tandem mass spectrometry.

In laboratory studies, the researchers used it to analyze fresh urine samples for the presence of tiny amounts of seven different anabolic steroids. The new method accurately identified the steroids in only a few seconds using only a single drop of urine, they say.

Source: ACS