

Systemex and the Fight against Doping in Sports

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Systemex haematological systems are well known and used for routine haematology in many laboratories all over the world. Several universities also use Systemex instruments for research studies in different clinical conditions. Did you know that Systemex systems are also of great help in the fight against doping in sports? At the beginning of October 2006, Systemex Deutschland GmbH, Germany, together with its Swiss counterpart Systemex Digitana AG presented their systems and solutions for use in anti-doping at the World Anti-Doping Symposium of the International Association of Athletics Federations (IAAF) in Lausanne. Beside others, Systemex was also one of the main sponsors of this international high-level event.

At the three day symposium, latest results of research in the World Anti-Doping Agency (WADA) accredited doping laboratories were discussed as well as educational matters and possibilities to challenge the national and international doping control system. In addition to the IAAF president, Mr Lamine Diack, presidents of different national athletics federations, heads of national doping laboratories, sports organisations, national anti-doping organisations, athletes, lawyers, and doping control officers attended the different meetings and workshops.

Doping by using methods to enrich human blood by recombinant erythropoietin is -unfortunately- common in sports such as cycling or long distance running. WADA and its worldwide accredited 33 laboratories do a lot of research to detect such methods in order to prevent cheating in sports. One secure way to detect such forbidden methods is taking blood samples from the athletes on a regular basis and to archive blood profiles of each of them. Based on the results of the analyses of the blood, irregularities can be detected and further reviewed.



Fig. 1 The number of participants from all over the world was around 400



Fig. 2 Discussions with participants during the breaks

Some WADA accredited laboratories use whole blood haematology analysers manufactured by Sysmex to analyse the blood samples taken from athletes. More and more national anti-doping organisations as well as sports associations all over the world (e.g. the German Track and Field Association) do profile or start thinking of profiling their high performance athletes. For them, in particular, the use of mobile units (specially prepared Sysmex XT-2000i analysers) shown at the presentation in Lausanne are very helpful instruments. It enables the Doping Control Officers to analyse the blood right after having taken the sample and, in case of irregularities detected, to take a sample of urine from the athlete which then can be further investigated. The Sysmex haematological systems are, thus, of high importance.

Doping Control Officers, laboratory staff, high level research personnel, heads of anti-doping departments and medical commissions from all over the world used the discussions with experts from Sysmex to get more and helpful information on the instrument and the opportunities of using it.

As you can see, Sysmex haematological systems do not only help to detect disease and do research, they also help to detect usage of forbidden methods in sports and, thus, to keep sports fair and clean.



Fig. 3 & 4 The Sysmex booth, showing the XT-2000i which is used by the International Cyclist Union (UCI) with the special box for mobile use.