ERGOGENIC AIDS AND ANTIDOPING
POLICY: CURRENT ISSUES
Fabio Pigozzi
University Institute of Movement Sciences (IUSM), Rome – Italy
IOC Medical Commission

Out-of-competition Tests

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Country</th>
<th>Substance</th>
<th>Sport</th>
<th>Modality</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>David Munyasia</td>
<td>Kenya</td>
<td>Cathine</td>
<td>Boxing</td>
<td>Male</td>
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<tr>
<td>2</td>
<td>Kostas Kenteris</td>
<td>Greece</td>
<td>No show</td>
<td>Track and Field</td>
<td>200m</td>
<td>Male</td>
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<tr>
<td>3</td>
<td>Katerina Thanou</td>
<td>Greece</td>
<td>No show</td>
<td>Track and Field</td>
<td>100m</td>
<td>Female</td>
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<tr>
<td>4</td>
<td>Schukina Olga</td>
<td>Usbekistan</td>
<td>Clembuterol</td>
<td>Track and Field</td>
<td>Shot put</td>
<td>Random</td>
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<tr>
<td>5</td>
<td>Mital Sharipov</td>
<td>Kukistan</td>
<td>Stanozolol</td>
<td>Weightlifting</td>
<td>Male</td>
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<tr>
<td>6</td>
<td>Albina Chomitsch</td>
<td>Russia</td>
<td>Methandienone</td>
<td>Weightlifting</td>
<td>Female</td>
<td></td>
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<tr>
<td>7</td>
<td>Wafa Ammouri</td>
<td>Morocco</td>
<td>Nandrolone</td>
<td>Weightlifting</td>
<td>Female</td>
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<tr>
<td>8</td>
<td>Victor Chislean</td>
<td>Moldova</td>
<td>Stanozolol</td>
<td>Weightlifting</td>
<td>Male</td>
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<tr>
<td>9</td>
<td>Zoltan Kecskes</td>
<td>Hungary</td>
<td>Oxandrolone</td>
<td>Weightlifting</td>
<td>Male</td>
<td></td>
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<tr>
<td>10</td>
<td>Tratima Kumari</td>
<td>India</td>
<td>Testosterone</td>
<td>Weightlifting</td>
<td>Female</td>
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</tbody>
</table>

In-competition Tests

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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nan Aye Khine</td>
<td>Myanmar</td>
<td>Anabolic</td>
<td>Weightlifting</td>
<td>4th place</td>
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<tr>
<td>2</td>
<td>Sanamacha Chanu</td>
<td>India</td>
<td>Furosamide</td>
<td>Weightlifting</td>
<td>4th place</td>
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<tr>
<td>3</td>
<td>Leonidas Sampanis</td>
<td>Greece</td>
<td>Testosterone</td>
<td>Weightlifting</td>
<td>62 kg Bronze</td>
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<tr>
<td>4</td>
<td>Irina Koschanenko</td>
<td>Russia</td>
<td>Stanozolol</td>
<td>Track and Field</td>
<td>Shot put Gold</td>
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<tr>
<td>5</td>
<td>Robert Fazekas</td>
<td>Hungary</td>
<td>Refusal</td>
<td>Track and Field</td>
<td>Discus Gold</td>
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<tr>
<td>6</td>
<td>Aleksej Lesnitschij</td>
<td>Belarus</td>
<td>Clembuterol</td>
<td>Track and Field</td>
<td>High Jump Gold</td>
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<tr>
<td>7</td>
<td>Olena Olefirenko</td>
<td>Ukraine</td>
<td>Ethamivan</td>
<td>Rowing</td>
<td>4 skiff Bronze</td>
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<tr>
<td>8</td>
<td>Zoltan Kovacs</td>
<td>Hungary</td>
<td>Refusal</td>
<td>Weightlifting</td>
<td>105 kg Silver</td>
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<tr>
<td>9</td>
<td>Anton Galkin</td>
<td>Russia</td>
<td>Stanozolol</td>
<td>Track and Field</td>
<td>400 m Random</td>
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<td>Ferenc Gyurrkovics</td>
<td>Hungary</td>
<td>Oxandrolon</td>
<td>Weightlifting</td>
<td>105 kg Silver</td>
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<td>11</td>
<td>Mabel Fonseca</td>
<td>Puerto Rico</td>
<td>Stanozolol</td>
<td>Wrestling</td>
<td>55 kg Random</td>
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<tr>
<td>12</td>
<td>Jose Israel Rubio</td>
<td>Venezuela</td>
<td>Testosterone</td>
<td>Weightlifting</td>
<td>Bronze</td>
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<tr>
<td>13</td>
<td>Annus Adrian</td>
<td>Hungary</td>
<td>Refusal</td>
<td>Track and Field</td>
<td>Gold</td>
</tr>
<tr>
<td>14</td>
<td>Maria Luisa Calle</td>
<td>Colombia</td>
<td>Heptaminol</td>
<td>Cycling</td>
<td>Points race Bronze</td>
</tr>
</tbody>
</table>

*In-competition positive doping cases in Athens*

It is more important participating than winning.
NUTRITIONAL ERGOCENIC AIDS

- contain nutrients or other food components in amounts greater than nutrient RDI levels, or the amounts typically provided by food
- propose a direct ergogenic (work-enhancing) effect on sports performance, often through a pharmacological rather than a physiological effect
- often rely on theoretical or anecdotal support rather than on documented support from scientific trials
- are generally not supported by sports nutrition experts, except where scientific trials have documented a significant ergogenic effect

YES
- creatine
- caffeine
- bicarbonate

NO
- carnitine
- glutamine
- Cr
- "the rest"

WHAT DOES REALLY WORK?

- ginseng
- mahuang or Chinese ephedra
- ashwagandha
- yohimbe
- cordyceps fungus
- shilajit or mummiio
- smilax
- wild oats
- tribulus terrestris
- nettle berries
- B- sitosterol/related sterols
- wild yams (diosgenin)

HERBALS

NUTRITIONAL SUPPLEMENTS CONTAMINATED WITH STEROIDS

- creatine
- carnitine
- vitamins
- minerals
- tribulus terrestris
- BCAA and CRP
- DHEA
- other oils
- Pote (proandrogenic, high quality)!
PURITY

- PHARMACEUTICAL PRODUCTS
- NUTRITIONAL SUPPLEMENTS

PROJECT
HORMONE-FREE Sports Nutrition

Informations to
- National Federal Authorities
- Austrian Sports Organisation, Sport Federations
- Athletes

Model: Hormone-Free Sports Nutrition
- Information
- Avoidance of the “Doping-Trap” Contaminated Supplements

DIRECTIVE 2002/46 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

Aimed to the harmonisation of rules the Countries member relative to the nutritional supplements guide

The Countries member will have to get conform to this directive by 31st July 2003

Products lacking of the requirements listed in the provision, will be withdrawn by 1st August 2003

POSOLOGY

Specific rules for vitamins and minerals produced, finalised to supplementation

Specific requirements for labels of the packages

Specific rules for vitamins and minerals produced, finalised to supplementation

Specific requirements for labels of the packages

In a second phase specific rules will be defined, relative to nutrients which differ from vitamins or from other minerals and substances having a nutritional or physiological effect, utilised as components for nutritional supplements (e.g. ammions, fatty acids, fibers and herbals)

The Countries member will have to get conform to this directive by 31st July 2003

Products lacking of the requirements listed in the provision, will be withdrawn by 1st August 2003

Follow-up Austria "Hormone - free sports nutrition"

List of supplements considered necessary
Sports federation

Contacting a supplement producer
Sports federation

Quality declaration
Producer

Analysis of Products / Market control
Laboratory

Test report to producer and federation
Laboratory

Positive result

Report to national agencies
Laboratory

Release of products (not companies) by the federation

G. Gmeiner
CONSEQUENCES FOR PRODUCERS

- Stable good quality of the products
- No hormones, no pro-estrogens are found by the analysis of an accredited laboratory
- Producer covers the costs for the analyses
- Test report goes straight, but confidential to sports federations
- Test result may not be published as itself, but mentioned
- Positive result is reported to the national agencies

PRODUCT QUALITY CONTROL

Pre-requisites

- Products should not contain pro-hormones
- Products should not be manufactured with pure raw materials and should not be contaminated by substances prohibited by International Olympic Committee rules

In conclusion.....

Athletes must be aware of the strict liability principle that makes them responsible for everything they eat and drink.

Ignorance is not an acceptable excuse for a positive doping result.

Check all supplements with a medical officer.

If there is any doubt at all, don’t take it!!!!!
Genetical manipulation.
Which should the limit be?