

## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

### Overview of Results

**Table A** Olympic and Non-Olympic: Adverse Analytical Findings Rate

| Differentiation between Olympic and Non-Olympic Sports | A Samples Analyzed | A Samples Adverse Analytical Findings* | % Adverse    |
|--|--------------------|--|--------------|
| Olympic Sports   | 156,866            | 2,915                                  | 1.86%        |
| Non-Olympic Sports                                     | 41,277             | 972                                    | 2.35%        |
| <b>TOTAL</b>   | <b>198,143</b>     | <b>3,887</b>                           | <b>1.96%</b> |

**\* NOTE: The Adverse Analytical Findings (AAF) in this report are not to be confused with adjudicated or sanctioned Anti-Doping Rule Violations (ADRV).** "Adverse Analytical Finding" is defined in the World Anti-Doping Code as "a report from a laboratory or approved Testing entity that identifies in a Specimen the presence of a Prohibited Substance or its Metabolites or Markers (including elevated quantities of endogenous substances) or evidence of the Use of a Prohibited Method." These figures may not be identical to sanctioned cases, as the figures given in this report may contain findings that underwent the Therapeutic Use Exemption (TUE) approval process. In addition, some Adverse Analytical Findings may correspond to multiple measurements performed on the same athlete, such as in cases of longitudinal studies on testosterone.

## Adverse Analytical Findings

### Comparison of years 2003 to 2006

**Table A1**

Olympic and Non-Olympic: Adverse Analytical Findings

| Differentiation between Olympic and Non-Olympic Sports | 2003<br>A Samples Analyzed | 2004<br>A Samples Analyzed | 2005<br>A Samples Analyzed | 2006<br>A Samples Analyzed | % difference<br>2006 vs 2005 |
|--|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------|
| Olympic Sports   | 113,559                    | 128,591                    | 139,836                    | 156,866                    | 12.2%                        |
| Non-Olympic Sports                                     | 37,651                     | 40,596                     | 43,501                     | 41,277                     | -5.1%                        |
| TOTAL  | 151,210                    | 169,187                    | 183,337                    | 198,143                    | 8.1%                         |

| Differentiation between Olympic and Non-Olympic Sports | 2003<br>A Samples Adverse Analytical Findings* | 2004<br>A Samples Adverse Analytical Findings* | 2005<br>A Samples Adverse Analytical Findings* | 2006<br>A Samples Adverse Analytical Findings* | % difference<br>2006 vs 2005 |
|--|--|--|--|--|------------------------------|
| Olympic Sports   | 1,707  | 2,145  | 2,958  | 2,915  | -1.5%                        |
| Non-Olympic Sports                                     | 740  | 764  | 951  | 972  | 2.2%                         |
| TOTAL  | 2,447  | 2,909  | 3,909  | 3,887  | -0.6%                        |

| Differentiation between Olympic and Non-Olympic Sports | 2003<br>% Adverse | 2004<br>% Adverse | 2005<br>% Adverse | 2006<br>% Adverse | % difference<br>2006 vs 2005 |
|--|-------------------|-------------------|-------------------|-------------------|------------------------------|
| Olympic Sports   | 1.50              | 1.67              | 2.12              | 1.86              | -12.2%                       |
| Non-Olympic Sports                                     | 1.97              | 1.88              | 2.19              | 2.35              | 7.3%                         |
| Overall  | 1.62              | 1.72              | 2.13              | 1.96              | -7.9%                        |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table B** Total Adverse Analytical Findings per Laboratory  
(Olympic and Non-Olympic Sports)

| Laboratory   |                                    | N<br>Total     | N<br>Adverse<br>Analytical<br>Findings* | % Adverse    |
|--------------|------------------------------------|----------------|---|--------------|
| 1            | <b>Sydney</b> , Australia          | 7,574          | 129                                     | 1.70         |
| 2            | <b>Seibersdorf</b> , Austria       | 5,931          | 119                                     | 2.01         |
| 3            | <b>Ghent</b> , Belgium             | 5,682          | 268                                     | 4.72         |
| 4            | <b>Rio de Janeiro</b> , Brazil     | 4,208          | 20                                      | 0.48         |
| 5            | <b>Montreal</b> , Canada           | 14,706         | 294                                     | 2.00         |
| 6            | <b>Beijing</b> , China             | 8,572          | 66                                      | 0.77         |
| 7            | <b>Bogota</b> , Colombia           | 2,717          | 56                                      | 2.06         |
| 8            | <b>Havana</b> , Cuba               | 1,933          | 24                                      | 1.24         |
| 9            | <b>Prague</b> , Czech Republic     | 1,659          | 122                                     | 7.35         |
| 10           | <b>Helsinki</b> , Finland          | 1,858          | 57                                      | 3.07         |
| 11           | <b>Paris</b> , France              | 8,394          | 454                                     | 5.41         |
| 12           | <b>Cologne</b> , Germany           | 11,006         | 279                                     | 2.53         |
| 13           | <b>Kreischa</b> , Germany          | 5,870          | 169                                     | 2.88         |
| 14           | <b>Cambridge</b> , UK              | 1,508          | 15                                      | 0.99         |
| 15           | <b>London</b> , UK                 | 8,594          | 98                                      | 1.14         |
| 16           | <b>Athens</b> , Greece             | 4,699          | 69                                      | 1.47         |
| 17           | <b>Rome</b> , Italy                | 8,319          | 222                                     | 2.67         |
| 18           | <b>Tokyo</b> , Japan               | 4,004          | 23                                      | 0.57         |
| 19           | <b>Seoul</b> , Korea               | 3,581          | 21                                      | 0.59         |
| 20           | <b>Penang</b> , Malaysia           | 2,498          | 49                                      | 1.96         |
| 21           | <b>Oslo</b> , Norway               | 4,683          | 102                                     | 2.18         |
| 22           | <b>Warsaw</b> , Poland             | 2,123          | 65                                      | 3.06         |
| 23           | <b>Lisbon</b> , Portugal           | 3,494          | 116                                     | 3.32         |
| 24           | <b>Bloemfontein</b> , South Africa | 3,158          | 50                                      | 1.58         |
| 25           | <b>Moscow</b> , Russia             | 5,525          | 58                                      | 1.05         |
| 26           | <b>Barcelona</b> , Spain           | 3,684          | 83                                      | 2.25         |
| 27           | <b>Madrid</b> , Spain              | 6,652          | 124                                     | 1.86         |
| 28           | <b>Stockholm</b> , Sweden          | 4,028          | 129                                     | 3.20         |
| 29           | <b>Lausanne</b> , Switzerland      | 3,865          | 120                                     | 3.10         |
| 30           | <b>Bangkok</b> , Thailand          | 1,658          | 21                                      | 1.27         |
| 31           | <b>Tunis</b> , Tunisia             | 1,499          | 32                                      | 2.13         |
| 32           | <b>Ankara</b> , Turkey             | 3,760          | 28                                      | 0.74         |
| 33           | <b>Los Angeles</b> , USA           | 39,097         | 386                                     | 0.99         |
| 34           | <b>Salt Lake City</b> , USA        | 1,604          | 19                                      | 1.18         |
| <b>TOTAL</b> |                                    | <b>198,143</b> | <b>3,887</b>                            | <b>1.96%</b> |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table B1** Olympic Sport Adverse Analytical Findings per Laboratory

| Laboratory   |                                    | N<br>Total     | N<br>Adverse<br>Analytical<br>Findings* | % Adverse    |
|--------------|------------------------------------|----------------|---|--------------|
| 1            | <b>Sydney</b> , Australia          | 4,615          | 89                                      | 1.93         |
| 2            | <b>Seibersdorf</b> , Austria       | 5,420          | 92                                      | 1.70         |
| 3            | <b>Ghent</b> , Belgium             | 4,734          | 184                                     | 3.89         |
| 4            | <b>Rio de Janeiro</b> , Brazil     | 4,158          | 10                                      | 0.24         |
| 5            | <b>Montreal</b> , Canada           | 14,040         | 263                                     | 1.87         |
| 6            | <b>Beijing</b> , China             | 8,079          | 63                                      | 0.78         |
| 7            | <b>Bogota</b> , Colombia           | 2,455          | 53                                      | 2.16         |
| 8            | <b>Havana</b> , Cuba               | 1,803          | 21                                      | 1.16         |
| 9            | <b>Prague</b> , Czech Republic     | 1,371          | 81                                      | 5.91         |
| 10           | <b>Helsinki</b> , Finland          | 1,392          | 40                                      | 2.87         |
| 11           | <b>Paris</b> , France              | 6,575          | 339                                     | 5.16         |
| 12           | <b>Cologne</b> , Germany           | 9,640          | 178                                     | 1.85         |
| 13           | <b>Kreischa</b> , Germany          | 5,300          | 144                                     | 2.72         |
| 14           | <b>Cambridge</b> , UK              | 1,102          | 6                                       | 0.54         |
| 15           | <b>London</b> , UK                 | 6,392          | 60                                      | 0.94         |
| 16           | <b>Athens</b> , Greece             | 4,169          | 62                                      | 1.49         |
| 17           | <b>Rome</b> , Italy                | 7,313          | 194                                     | 2.65         |
| 18           | <b>Tokyo</b> , Japan               | 3,545          | 17                                      | 0.48         |
| 19           | <b>Seoul</b> , Korea               | 2,742          | 9                                       | 0.33         |
| 20           | <b>Penang</b> , Malaysia           | 1,825          | 17                                      | 0.93         |
| 21           | <b>Oslo</b> , Norway               | 3,781          | 77                                      | 2.04         |
| 22           | <b>Warsaw</b> , Poland             | 2,026          | 51                                      | 2.52         |
| 23           | <b>Lisbon</b> , Portugal           | 2,764          | 72                                      | 2.60         |
| 24           | <b>Bloemfontein</b> , South Africa | 2,129          | 35                                      | 1.64         |
| 25           | <b>Moscow</b> , Russia             | 5,289          | 53                                      | 1.00         |
| 26           | <b>Barcelona</b> , Spain           | 3,336          | 62                                      | 1.86         |
| 27           | <b>Madrid</b> , Spain              | 5,688          | 92                                      | 1.62         |
| 28           | <b>Stockholm</b> , Sweden          | 3,115          | 99                                      | 3.18         |
| 29           | <b>Lausanne</b> , Switzerland      | 3,429          | 102                                     | 2.97         |
| 30           | <b>Bangkok</b> , Thailand          | 835            | 17                                      | 2.04         |
| 31           | <b>Tunis</b> , Tunisia             | 1,285          | 18                                      | 1.40         |
| 32           | <b>Ankara</b> , Turkey             | 3,243          | 26                                      | 0.80         |
| 33           | <b>Los Angeles</b> , USA           | 23,276         | 289                                     | 1.24         |
| 34           | <b>Salt Lake City</b> , USA        | -              | -                                       | -            |
| <b>TOTAL</b> |                                    | <b>156,866</b> | <b>2,915</b>                            | <b>1.86%</b> |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table B2 Non-Olympic Sport Adverse Analytical Findings per Laboratory**

| Laboratory   |                                    | N<br>Total    | N<br>Adverse<br>Analytical<br>Findings* | % Adverse    |
|--------------|------------------------------------|---------------|---|--------------|
| 1            | <b>Sydney</b> , Australia          | 2,959         | 40                                      | 1.35         |
| 2            | <b>Seibersdorf</b> , Austria       | 511           | 27                                      | 5.28         |
| 3            | <b>Ghent</b> , Belgium             | 948           | 84                                      | 8.86         |
| 4            | <b>Rio de Janeiro</b> , Brazil     | 50            | 10                                      | 20.00        |
| 5            | <b>Montreal</b> , Canada           | 666           | 31                                      | 4.65         |
| 6            | <b>Beijing</b> , China             | 493           | 3                                       | 0.61         |
| 7            | <b>Bogota</b> , Colombia           | 262           | 3                                       | 1.15         |
| 8            | <b>Havana</b> , Cuba               | 130           | 3                                       | 2.31         |
| 9            | <b>Prague</b> , Czech Republic     | 288           | 41                                      | 14.24        |
| 10           | <b>Helsinki</b> , Finland          | 466           | 17                                      | 3.65         |
| 11           | <b>Paris</b> , France              | 1,819         | 115                                     | 6.32         |
| 12           | <b>Cologne</b> , Germany           | 1,366         | 101                                     | 7.39         |
| 13           | <b>Kreischa</b> , Germany          | 570           | 25                                      | 4.39         |
| 14           | <b>Cambridge</b> , UK              | 406           | 9                                       | 2.22         |
| 15           | <b>London</b> , UK                 | 2,202         | 38                                      | 1.73         |
| 16           | <b>Athens</b> , Greece             | 530           | 7                                       | 1.32         |
| 17           | <b>Rome</b> , Italy                | 1,006         | 28                                      | 2.78         |
| 18           | <b>Tokyo</b> , Japan               | 459           | 6                                       | 1.31         |
| 19           | <b>Seoul</b> , Korea               | 839           | 12                                      | 1.43         |
| 20           | <b>Penang</b> , Malaysia           | 673           | 32                                      | 4.75         |
| 21           | <b>Oslo</b> , Norway               | 902           | 25                                      | 2.77         |
| 22           | <b>Warsaw</b> , Poland             | 97            | 14                                      | 14.43        |
| 23           | <b>Lisbon</b> , Portugal           | 730           | 44                                      | 6.03         |
| 24           | <b>Bloemfontein</b> , South Africa | 1,029         | 15                                      | 1.46         |
| 25           | <b>Moscow</b> , Russia             | 236           | 5                                       | 2.12         |
| 26           | <b>Barcelona</b> , Spain           | 348           | 21                                      | 6.03         |
| 27           | <b>Madrid</b> , Spain              | 964           | 32                                      | 3.32         |
| 28           | <b>Stockholm</b> , Sweden          | 913           | 30                                      | 3.29         |
| 29           | <b>Lausanne</b> , Switzerland      | 436           | 18                                      | 4.13         |
| 30           | <b>Bangkok</b> , Thailand          | 823           | 4                                       | 0.49         |
| 31           | <b>Tunis</b> , Tunisia             | 214           | 14                                      | 6.54         |
| 32           | <b>Ankara</b> , Turkey             | 517           | 2                                       | 0.39         |
| 33           | <b>Los Angeles</b> , USA           | 15,821        | 97                                      | 0.61         |
| 34           | <b>Salt Lake City</b> , USA        | 1,604         | 19                                      | 1.18         |
| <b>TOTAL</b> |                                    | <b>41,277</b> | <b>972</b>                              | <b>2.35%</b> |

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# 2006 Adverse Analytical Findings Reported by Accredited Laboratories

Table C

## Olympic Sport Sample Analysis

| Sport                            | Discipline            | Total per Discipline | Total per Sport | A Sample Adverse Analytical Findings* | % Adverse |
|----------------------------------|-----------------------|----------------------|-----------------|---------------------------------------|-----------|
| Aquatics                         | Aquatics              | 1,799                | 11,582          | 137                                   | 1.18%     |
|                                  | Diving                | 308                  |                 |                                       |           |
|                                  | Swimming              | 8,035                |                 |                                       |           |
|                                  | Synchronised Swimming | 475                  |                 |                                       |           |
|                                  | Water Polo            | 965                  |                 |                                       |           |
| Archery                          | Archery               | -                    | 845             | 11                                    | 1.30%     |
| Athletics                        | Athletics             | -                    | 19,781          | 315                                   | 1.59%     |
| Badminton                        | Badminton             | -                    | 1,066           | 10                                    | 0.94%     |
| Baseball                         | Baseball              | -                    | 15,977          | 370                                   | 2.32%     |
| Basketball                       | Basketball            | -                    | 7,473           | 136                                   | 1.82%     |
| Biathlon                         | Biathlon              | -                    | 1,094           | 21                                    | 1.92%     |
| Bobsleigh                        | Bobsleigh             | 847                  | 908             | 13                                    | 1.43%     |
|                                  | Tobogganing           | 14                   |                 |                                       |           |
|                                  | Skeleton              | 47                   |                 |                                       |           |
| Boxing                           | Boxing                | -                    | 2,553           | 61                                    | 2.39%     |
| Canoe / Kayak                    | Canoe / Kayak         | -                    | 2,918           | 34                                    | 1.17%     |
| Curling                          | Curling               | -                    | 350             | 2                                     | 0.57%     |
| Cycling                          | Cycling               | 14,021               | 14,229          | 594                                   | 4.17%     |
|                                  | Mountain Bike         | 208                  |                 |                                       |           |
| Equestrian                       | Equestrian            | -                    | 579             | 8                                     | 1.38%     |
| Fencing                          | Fencing               | -                    | 1,837           | 11                                    | 0.60%     |
| Football                         | Football              | -                    | 25,727          | 281                                   | 1.09%     |
| Gymnastics                       | Gymnastics            | 1,889                | 2,102           | 21                                    | 1.00%     |
|                                  | Artistic Gymnastics   | 99                   |                 |                                       |           |
|                                  | Rhythmic Gymnastics   | 54                   |                 |                                       |           |
|                                  | Trampoline            | 60                   |                 |                                       |           |
| Handball                         | Handball              | -                    | 2,568           | 51                                    | 1.99%     |
| Hockey                           | Hockey                | -                    | 1,744           | 32                                    | 1.83%     |
| Ice Hockey                       | Ice Hockey            | -                    | 5,011           | 94                                    | 1.88%     |
| Judo                             | Judo                  | -                    | 3,121           | 45                                    | 1.44%     |
| Luge                             | Luge                  | -                    | 208             | 3                                     | 1.44%     |
| Modern Pentathlon                | Modern Pentathlon     | -                    | 480             | 10                                    | 2.08%     |
| Rowing                           | Rowing                | -                    | 3,221           | 53                                    | 1.65%     |
| Sailing                          | Sailing               | -                    | 1,000           | 17                                    | 1.70%     |
| Shooting                         | Shooting              | -                    | 2,406           | 13                                    | 0.54%     |
| Skating                          | Skating               | 1,496                | 3,078           | 41                                    | 1.33%     |
|                                  | Speed Skating         | 1,159                |                 |                                       |           |
|                                  | Figure Skating        | 423                  |                 |                                       |           |
| Skiing                           | Skiing                | 2,181                | 3,901           | 76                                    | 1.95%     |
|                                  | Alpine Skiing         | 365                  |                 |                                       |           |
|                                  | Cross Country Ski     | 161                  |                 |                                       |           |
|                                  | Ski Jumping           | 645                  |                 |                                       |           |
|                                  | Snowboard             | 140                  |                 |                                       |           |
|                                  | Combined Skiing       | 102                  |                 |                                       |           |
|                                  | Freestyle Skiing      | 307                  |                 |                                       |           |
| Softball                         | Softball              | -                    | 491             | 7                                     | 1.43%     |
| Table Tennis                     | Table Tennis          | -                    | 827             | 10                                    | 1.21%     |
| Taekwondo                        | Taekwondo             | -                    | 1,328           | 21                                    | 1.58%     |
| Tennis                           | Tennis                | -                    | 2,748           | 44                                    | 1.60%     |
| Triathlon                        | Triathlon             | -                    | 2,366           | 67                                    | 2.83%     |
| Volleyball                       | Volleyball            | 3,199                | 3,340           | 48                                    | 1.44%     |
|                                  | Beach Volleyball      | 141                  |                 |                                       |           |
| Weightlifting                    | Weightlifting         | -                    | 6,543           | 187                                   | 2.86%     |
| Wrestling                        | Wrestling             | -                    | 3,055           | 58                                    | 1.90%     |
| Baseball / Softball <sup>1</sup> |                       | -                    | 104             | 6                                     | 5.77%     |
| Hockey / Skating <sup>1</sup>    |                       | -                    | 16              | 0                                     | 0.00%     |
| Ice Sport <sup>1</sup>           |                       | -                    | 289             | 7                                     | 2.42%     |
| Total                            |                       |                      | 156,866         | 2,915                                 | 1.86%     |

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<sup>1</sup> "Baseball/Softball," "Hockey/Skating," "Ice Sport" were designated on Doping Control Forms and unable to assign by single sport or federation.

## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table D1** Sample Analysis in Selected\*\* IOC Recognized Sports

| Sport        | Discipline     | Total per Discipline | Total per Sport | Adverse Analytical Findings* | % adverse (discipline) | % adverse (Sport) |
|--------------|----------------|----------------------|-----------------|------------------------------|------------------------|-------------------|
| Rollersports | Roller Hockey  | 133                  | 784             | 22                           | -                      | 2.81%             |
|              | Roller Skating | 515                  |                 |                              |                        |                   |
|              | Roller Sports  | 136                  |                 |                              |                        |                   |
| Golf         | Golf           | -                    | 412             | 11                           | -                      | 2.67%             |
| Karate       | Karate         | -                    | 727             | 13                           | -                      | 1.79%             |
| Rugby        | Rugby          | 3,122                | 4,782           | 106                          | 3.40%                  | 2.63%             |
|              | Rugby Union    | 1,660                |                 | 20                           | 1.20%                  |                   |
| Squash       | Squash         | -                    | 419             | 5                            | -                      | 1.19%             |
| <b>TOTAL</b> |                |                      | <b>7,124</b>    | <b>177</b>                   | <b>-</b>               | <b>2.48%</b>      |

\*\* as requested by the International Olympic Committee.

**Table D2** Sample Analysis in Other IOC Recognized Sports

| Sport                       | Total per Sport | Adverse Analytical Findings* | % Adverse    |
|-----------------------------|-----------------|------------------------------|--------------|
| Air Sports                  | 97              | 9                            | 9.28%        |
| Bandy                       | 94              | 3                            | 3.19%        |
| Billiard Sports             | 326             | 24                           | 7.36%        |
| Boules                      | 356             | 6                            | 1.69%        |
| Bowling                     | 318             | 10                           | 3.14%        |
| Bridge                      | 39              | 3                            | 7.69%        |
| Chess                       | 75              | 1                            | 1.33%        |
| Dance Sport                 | 194             | 4                            | 2.06%        |
| Korfball                    | 54              | 0                            | 0.00%        |
| Life Saving                 | 264             | 4                            | 1.52%        |
| Motorcycle Racing           | 368             | 10                           | 2.72%        |
| Mountaineering and Climbing | 261             | 3                            | 1.15%        |
| Netball                     | 265             | 2                            | 0.75%        |
| Orienteering                | 463             | 16                           | 3.46%        |
| Pelote Basque               | 86              | 1                            | 1.16%        |
| Polo                        | 10              | 0                            | 0.00%        |
| Powerboating                | 249             | 5                            | 2.01%        |
| Racquetball                 | 63              | 2                            | 3.17%        |
| Sumo                        | 79              | 2                            | 2.53%        |
| Surfing                     | 91              | 3                            | 3.30%        |
| Tug of War                  | 106             | 1                            | 0.94%        |
| Underwater Sports           | 387             | 4                            | 1.03%        |
| Water Skiing                | 207             | 4                            | 1.93%        |
| Wushu                       | 141             | 0                            | 0.00%        |
| <b>TOTAL</b>                | <b>4,593</b>    | <b>117</b>                   | <b>2.55%</b> |

**Table E** Sample Analysis in Paralympic Sports

| Sport             | Total per Sport | Adverse Analytical Findings* | % Adverse |
|-------------------|-----------------|------------------------------|-----------|
| Paralympic Sports | 1,881           | 41                           | 2.18%     |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table F**                      Number of Substances Identified in Each Drug Class

| Substance Group                          | Number*      | % of all adverse analytical findings |
|--|--------------|--------------------------------------|
| S1. Anabolic Agents                      | 1,966        | 45.4%                                |
| S3. Beta-2 Agonists                      | 631          | 14.6%                                |
| S8. Cannabinoids                         | 553          | 12.8%                                |
| S6. Stimulants                           | 490          | 11.3%                                |
| S5. Diuretics and Other Masking Agents   | 290          | 6.7%                                 |
| S9. Glucocorticosteroids                 | 282          | 6.5%                                 |
| S2. Hormones and Related Substances      | 42           | 1.0%                                 |
| P2. Beta-Blockers                        | 28           | 0.6%                                 |
| S4. Agents with Anti-Estrogenic Activity | 30           | 0.7%                                 |
| S7. Narcotics                            | 16           | 0.4%                                 |
| M2. Chemical and Physical Manipulation   | 4            | 0.1%                                 |
| <b>TOTAL</b>                             | <b>4,332</b> |                                      |

\* The Adverse Analytical Findings (AAF) in this report are not to be confused with adjudicated or sanctioned Anti-Doping Rule Violations (ADRV), as the figures given in this report may contain findings that underwent the Therapeutic Use Exemption (TUE) approval process. In addition, some adverse analytical findings correspond to multiple measurements performed on the same athlete, such as in the case of longitudinal studies on testosterone.



## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table G** Substances Identified in Each Drug Class

| <b>S1.1.a. Anabolic Agents - Exogenous AAS</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|--|--------------------|----------------------------|
| Nandrolone                                     | 237                | 12.1%                      |
| Stanozolol                                     | 222                | 11.3%                      |
| Methandienone                                  | 126                | 6.4%                       |
| Boldenone                                      | 37                 | 1.9%                       |
| Methyltestosterone                             | 33                 | 1.7%                       |
| Metenolone                                     | 30                 | 1.5%                       |
| Mesterolone                                    | 22                 | 1.1%                       |
| Drostanolone                                   | 17                 | 0.9%                       |
| Trenbolone                                     | 9                  | 0.5%                       |
| Oxandrolone                                    | 7                  | 0.4%                       |
| Oxymetholone                                   | 6                  | 0.3%                       |
| Clostebol                                      | 4                  | 0.2%                       |
| Dehydrochloromethyltestosterone                | 2                  | 0.1%                       |
| Mestanolone                                    | 2                  | 0.1%                       |
| Desoxymethyltestosterone                       | 2                  | 0.1%                       |
| Danazol  | 1                  | 0.1%                       |
| 1-testosterone                                 | 1                  | 0.1%                       |
| 1-androstendione                               | 1                  | 0.1%                       |
| Oxymesterone                                   | 1                  | 0.1%                       |
| Prostanozol                                    | 1                  | 0.1%                       |
| <b>subtotal*</b>                               | <b>761</b>         |                            |

| <b>S1.1.b. Anabolic Agents - Endogenous AAS<sup>1</sup></b> | <b>Occurrences</b> | <b>% within drug class</b> |
|---|--------------------|----------------------------|
| Testosterone  | 1,124              | 57.2%                      |
| Testosterone precursor(s)                                   | 13                 | 0.7%                       |
| Prasterone (DHEA)   | 11                 | 0.6%                       |
| Etiocholanolone   | 3                  | 0.2%                       |
| Androsterone  | 1                  | 0.1%                       |
| <b>subtotal*</b>  | <b>1,152</b>       |                            |

| <b>S.1.2 Other Anabolic Agents</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|------------------------------------|--------------------|----------------------------|
| Clenbuterol                        | 53                 | 2.7%                       |
| <b>subtotal*</b>                   | <b>53</b>          |                            |

| <b>S.1. All Anabolic Agents</b> | <b>Occurrences</b> |
|---------------------------------|--------------------|
| <b>TOTAL*</b>                   | <b>1,966</b>       |

<sup>1</sup> Reporting of an Endogenous AAS may be due to detection of a concentration outside normal reference ranges and/or establishment of an exogenous source by GC/C/IRMS.

| <b>S2. Hormones and Related Substances</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|--|--------------------|----------------------------|
| Gonadotrophins (hCG)                       | 22                 | 52.4%                      |
| Erythropoetin (EPO)                        | 17                 | 40.5%                      |
| Gonadotrophins (LH)                        | 2                  | 4.8%                       |
| Erythropoetin (Darbepoetin)                | 1                  | 2.4%                       |
| <b>TOTAL*</b>                              | <b>42</b>          |                            |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table G**  
(cont'd)

### Substances Identified in Each Drug Class

| <b>S3. Beta-2 Agonists<sup>1</sup></b> | <b>Occurrences</b> | <b>% within drug class</b> |
|--|--------------------|----------------------------|
| Salbutamol                             | 391                | 62.0%                      |
| Terbutaline                            | 175                | 27.7%                      |
| Formoterol                             | 42                 | 6.7%                       |
| Salmeterol                             | 16                 | 2.5%                       |
| Fenoterol                              | 5                  | 0.8%                       |
| Reproterol                             | 2                  | 0.3%                       |
| <b>TOTAL **</b>                        | <b>631</b>         |                            |

<sup>1</sup> Clenbuterol removed and placed into "S1.2 Other Anabolic Agents" as per Prohibited List

| <b>S4. Agents with anti-estrogenic activity</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|---|--------------------|----------------------------|
| Tamoxifen                                       | 11                 | 36.7%                      |
| Formestane                                      | 5                  | 16.7%                      |
| Clomiphene                                      | 4                  | 13.3%                      |
| Anastrozole                                     | 4                  | 13.3%                      |
| 6-oxo-androstenedione                           | 1                  | 3.3%                       |
| Androst-1,4,6-triene-3,17-dione (ATD)           | 1                  | 3.3%                       |
| Cylcofenil                                      | 1                  | 3.3%                       |
| Exemestane                                      | 1                  | 3.3%                       |
| Letrozole                                       | 1                  | 3.3%                       |
| Aminoglutethimide                               | 1                  | 3.3%                       |
| <b>TOTAL *</b>                                  | <b>30</b>          |                            |

| <b>S5. Diuretics and other masking agents</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|---|--------------------|----------------------------|
| Furosemide                                    | 90                 | 31.0%                      |
| Hydrochlorothiazide                           | 88                 | 30.3%                      |
| Finasteride                                   | 44                 | 15.2%                      |
| Epitestosterone                               | 15                 | 5.2%                       |
| Amiloride                                     | 10                 | 3.4%                       |
| Canrenone                                     | 8                  | 2.8%                       |
| Chlortalidone                                 | 8                  | 2.8%                       |
| Triamterene                                   | 7                  | 2.4%                       |
| Indapamide                                    | 5                  | 1.7%                       |
| Bumetanide                                    | 5                  | 1.7%                       |
| Bendroflumethazide                            | 2                  | 0.7%                       |
| Acetazolamide                                 | 2                  | 0.7%                       |
| Probenecid                                    | 2                  | 0.7%                       |
| Chlorothiazide                                | 1                  | 0.3%                       |
| Althiazide                                    | 1                  | 0.3%                       |
| Diclofenamide                                 | 1                  | 0.3%                       |
| Epitizide                                     | 1                  | 0.3%                       |
| <b>TOTAL *</b>                                | <b>290</b>         |                            |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table G**  
(cont'd)

### Substances Identified in Each Drug Class

| <b>M2. Chemical and Physical Manipulation</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|---|--------------------|----------------------------|
| Physical Manipulation                         | 4                  | 100.0%                     |
| <b>TOTAL *</b>                                | <b>4</b>           |                            |

| <b>S6. Stimulants</b>         | <b>Occurrences</b> | <b>% within drug class</b> |
|-------------------------------|--------------------|----------------------------|
| Amphetamine                   | 199                | 40.6%                      |
| Cocaine                       | 85                 | 17.3%                      |
| Ephedrine                     | 66                 | 13.5%                      |
| Methylphenidate               | 32                 | 6.5%                       |
| Cathine                       | 22                 | 4.5%                       |
| Phentermine                   | 13                 | 2.7%                       |
| Methylenedioxymethamphetamine | 9                  | 1.8%                       |
| Modafinil                     | 9                  | 1.8%                       |
| Methamphetamine               | 8                  | 1.6%                       |
| Heptaminol                    | 8                  | 1.6%                       |
| Securinine                    | 7                  | 1.4%                       |
| 4-phenylpiracetam (carphedon) | 5                  | 1.0%                       |
| Norfenfluramine               | 5                  | 1.0%                       |
| Mephentermine                 | 4                  | 0.8%                       |
| Methylenedioxyamphetamine     | 3                  | 0.6%                       |
| Nikethamide                   | 3                  | 0.6%                       |
| Sibutramine                   | 3                  | 0.6%                       |
| Strychnine                    | 2                  | 0.4%                       |
| Phenmetrazine                 | 1                  | 0.2%                       |
| Etilefrine                    | 1                  | 0.2%                       |
| Pemoline                      | 1                  | 0.2%                       |
| Isometheptene                 | 1                  | 0.2%                       |
| Methoxyphenamine              | 1                  | 0.2%                       |
| Pholedrine                    | 1                  | 0.2%                       |
| Propylhexedrine               | 1                  | 0.2%                       |
| <b>TOTAL *</b>                | <b>490</b>         |                            |

| <b>S7. Narcotics</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|----------------------|--------------------|----------------------------|
| Morphine             | 11                 | 68.8%                      |
| Methadone            | 3                  | 18.8%                      |
| Hydromorphone        | 1                  | 6.3%                       |
| Pethidine            | 1                  | 6.3%                       |
| <b>TOTAL *</b>       | <b>16</b>          |                            |

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## 2006 Adverse Analytical Findings Reported by Accredited Laboratories

**Table G**  
(cont'd)

### Substances Identified in Each Drug Class

| <b>S8. Cannabinoids</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|-------------------------|--------------------|----------------------------|
| Cannabinoids            | 553                | 100.0%                     |
| <b>TOTAL *</b>          | <b>553</b>         |                            |

| <b>S9. Glucocorticosteroids</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|---------------------------------|--------------------|----------------------------|
| Budesonide                      | 142                | 50.4%                      |
| Betamethasone                   | 45                 | 16.0%                      |
| Prednisolone                    | 30                 | 10.6%                      |
| Prednisone                      | 20                 | 7.1%                       |
| Triamcinolone Acetonide         | 18                 | 6.4%                       |
| Prednisolone + Prednisone       | 9                  | 3.2%                       |
| Methylprednisolone              | 9                  | 3.2%                       |
| Dexamethasone                   | 9                  | 3.2%                       |
| <b>TOTAL *</b>                  | <b>282</b>         |                            |

| <b>P2. Beta Blockers</b> | <b>Occurrences</b> | <b>% within drug class</b> |
|--------------------------|--------------------|----------------------------|
| Atenolol                 | 9                  | 32.1%                      |
| Metoprolol               | 6                  | 21.4%                      |
| Propanolol               | 6                  | 21.4%                      |
| Carvedilol               | 3                  | 10.7%                      |
| Bisoprolol               | 2                  | 7.1%                       |
| Timolol                  | 2                  | 7.1%                       |
| <b>TOTAL *</b>           | <b>28</b>          |                            |

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**2006 Adverse Analytical Findings Reported by Accredited Laboratories**
**Table H** Total Laboratory Adverse Analytical Findings\* vs Drug Class

| Laboratory                  | S1.<br>Anabolic<br>Agents | S2.<br>Hormones<br>and Related<br>Substances | S3.<br>Beta-2<br>Agonists | S4.<br>Agents with<br>Anti-<br>Estrogenic<br>Activity | S5.<br>Diuretics and<br>Other<br>Masking<br>Agents | S6.<br>Stimulants | S7.<br>Narcotics | S8.<br>Cannabinoids | S9.<br>Glucocortico-<br>steroids | P2.<br>Beta-<br>Blockers | Other       | Total per<br>Lab | % of total<br>adverse<br>analytical<br>findings |
|-----------------------------|---------------------------|--|---------------------------|---|--|-------------------|------------------|---------------------|----------------------------------|--------------------------|-------------|------------------|---|
| Sydney, Australia           | 101                       | -  | 2                         | -   | 2  | 8                 | -                | 20                  | -                                | -                        | -           | 133              | 3.1%  |
| Seibersdorf, Austria        | 78                        | 1  | 19                        | -   | 8  | 5                 | -                | 17                  | 3                                | -                        | -           | 131              | 3.0%  |
| Ghent, Belgium              | 159                       | 7  | 33                        | 2   | 16   | 39                | 6                | 58                  | 13                               | -                        | -           | 333              | 7.7%  |
| Rio de Janeiro, Brazil      | 6                         | -  | 2                         | -   | 5  | 8                 | -                | 3                   | -                                | -                        | -           | 24               | 0.6%  |
| Montreal, Canada            | 45                        | 1  | 36                        | 2   | 21   | 104               | 1                | 88                  | 10                               | -                        | -           | 308              | 7.1%  |
| Beijing, China              | 40                        | -  | 4                         | -   | 16   | 8                 | 1                | -                   | -                                | 1                        | -           | 70               | 1.6%  |
| Bogota, Colombia            | 38                        | -  | 5                         | -   | 10   | 4                 | -                | 2                   | 1                                | -                        | -           | 60               | 1.4%  |
| Havana, Cuba                | 22                        | -  | -                         | -   | 1  | -                 | -                | -                   | 1                                | -                        | -           | 24               | 0.6%  |
| Prague, Czech Republic      | 142                       | 1  | 12                        | 4   | 3  | 6                 | -                | 7                   | -                                | 1                        | -           | 176              | 4.1%  |
| Helsinki, Finland           | 32                        | -  | 19                        | -   | 3  | 1                 | -                | 1                   | 3                                | -                        | -           | 59               | 1.4%  |
| Paris, France               | 200                       | 3  | 84                        | 1   | 27   | 23                | -                | 94                  | 86                               | 1                        | -           | 519              | 12.0%   |
| Cologne, Germany            | 169                       | 1  | 59                        | 2   | 29   | 23                | 1                | 16                  | 13                               | 1                        | 4           | 318              | 7.3%  |
| Kreischa, Germany           | 76                        | 2  | 69                        | -   | 5  | 2                 | 2                | 3                   | 21                               | 1                        | -           | 181              | 4.2%  |
| Cambridge, UK               | 4                         | 1  | 5                         | -   | 2  | 1                 | -                | 2                   | -                                | -                        | -           | 15               | 0.3%  |
| London, UK                  | 53                        | 2  | 5                         | -   | 2  | 22                | -                | 16                  | -                                | -                        | -           | 100              | 2.3%  |
| Athens, Greece              | 27                        | -  | 7                         | -   | 4  | 5                 | -                | 11                  | 17                               | 1                        | -           | 72               | 1.7%  |
| Rome, Italy                 | 87                        | 4  | 60                        | 1   | 23   | 21                | -                | 20                  | 31                               | 3                        | -           | 250              | 5.8%  |
| Tokyo, Japan                | 9                         | -  | 6                         | -   | 3  | 4                 | -                | -                   | 1                                | -                        | -           | 23               | 0.5%  |
| Seoul, Korea                | 17                        | -  | 3                         | 5   | 2  | 4                 | -                | -                   | -                                | -                        | -           | 31               | 0.7%  |
| Penang, Malaysia            | 39                        | -  | 2                         | -   | 1  | -                 | -                | 3                   | 1                                | 3                        | -           | 49               | 1.1%  |
| Oslo, Norway                | 43                        | -  | 35                        | -   | 4  | 3                 | -                | 4                   | 14                               | -                        | -           | 103              | 2.4%  |
| Warsaw, Poland              | 67                        | -  | -                         | 2   | 3  | 6                 | -                | 2                   | -                                | -                        | -           | 80               | 1.8%  |
| Lisbon, Portugal            | 50                        | 4  | 9                         | -   | 19   | 11                | -                | 17                  | 8                                | 9                        | -           | 127              | 2.9%  |
| Bloemfontein, S Africa      | 25                        | 2  | 3                         | 1   | 4  | 2                 | -                | 15                  | 2                                | -                        | -           | 54               | 1.2%  |
| Moscow, Russia              | 39                        | -  | 3                         | -   | 9  | 4                 | 2                | 2                   | 1                                | 2                        | -           | 62               | 1.4%  |
| Barcelona, Spain            | 61                        | 6  | 14                        | 4   | 10   | 2                 | -                | 11                  | 2                                | 1                        | -           | 111              | 2.6%  |
| Madrid, Spain               | 3                         | 4  | 64                        | -   | 11   | 7                 | 1                | 20                  | 12                               | 2                        | -           | 124              | 2.9%  |
| Stockholm, Sweden           | 77                        | -  | 46                        | 1   | 5  | 5                 | -                | 1                   | 25                               | -                        | -           | 160              | 3.7%  |
| Lausanne, Switzerland       | 68                        | 1  | 20                        | 3   | 7  | 3                 | 1                | 8                   | 8                                | 2                        | -           | 121              | 2.8%  |
| Bangkok, Thailand           | 13                        | -  | -                         | -   | 4  | 5                 | -                | -                   | 3                                | -                        | -           | 25               | 0.6%  |
| Tunis, Tunisia              | 15                        | -  | 3                         | -   | 6  | 1                 | -                | 12                  | 1                                | -                        | -           | 38               | 0.9%  |
| Ankara, Turkey              | 13                        | -  | -                         | -   | 7  | 5                 | -                | 4                   | -                                | -                        | -           | 29               | 0.7%  |
| Los Angeles, USA            | 148                       | 2  | 2                         | 2   | 13   | 134               | 1                | 96                  | 5                                | -                        | -           | 403              | 9.3%  |
| Salt Lake City, USA         | -                         | -  | -                         | -   | 5  | 14                | -                | -                   | -                                | -                        | -           | 19               | 0.4%  |
| <b>TOTAL PER DRUG CLASS</b> | <b>1,966</b>              | <b>42</b>                                    | <b>631</b>                | <b>30</b>   | <b>290</b>   | <b>490</b>        | <b>16</b>        | <b>553</b>          | <b>282</b>                       | <b>28</b>                | <b>4</b>    | <b>4,332</b>     |   |
| <b>% of Drug Class</b>      | <b>45.4%</b>              | <b>1.0%</b>                                  | <b>14.6%</b>              | <b>0.7%</b>   | <b>6.7%</b>  | <b>11.3%</b>      | <b>0.4%</b>      | <b>12.8%</b>        | <b>6.5%</b>                      | <b>0.6%</b>              | <b>0.1%</b> |                  |   |

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