

# Munich 1972—Turning Point in the Olympic Doping Control System

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## The First Official Appearance of Doping Concerns on the Agenda of the International Olympic Committee

*Citius—Altius—Fortius* is the well known motto of Olympic sport. It was introduced by Baron Pierre de Coubertin during the closing ceremony of the first Olympic Congress held at the Sorbonne in 1894. But the Baron was not the originator of the famous motto. This honour goes to Dominican Father Henri Didon, who coined it as a guiding principle for a student sport festival organised at the Albertus Magnus Schule in Arceuil on 17 March 1891. Coubertin, who attended the school's sports day, valued Didon for his public support for integrating sporting activities into everyday school life. Since 1914, *Citius—Altius—Fortius* has become the official motto of the Olympic Movement.<sup>1</sup> Coubertin mentions in his article *La psychologie du sport* that the motto draws on the individual's desire to strive for the best result possible.<sup>2</sup>

The true nature of *Citius—Altius—Fortius* is traditionally based on the appreciation of an honourable and ethically justifiable achievement.<sup>3</sup> But this highly moral expectation was and has been challenged by, among others, the issue of doping, which was known to be happening by the International Olympic Committee (IOC) long before the Olympic Games were opened to professionals in the 1980s. In fact, at the 37<sup>th</sup> IOC Session in Warsaw in 1937, the topic of doping made its way onto the IOC agenda for the first time. It was Lord David George Burghley, IOC member for Great Britain, who drew the attention of his IOC colleagues to the problem of doping.<sup>4</sup> The evidence we collected for this paper does not provide concrete evidence on what exactly induced Burghley to raise the issue.<sup>5</sup> Nevertheless, it can be argued that Burghley was alarmed by the growing interest of science in performance enhancing drugs and the fact that the new scientific knowledge was welcomed by athletes.<sup>6</sup> Due to Burghley's initiative, the IOC was decided to appoint a commission which would present a report on the issue of doping at the IOC session, scheduled for Cairo in 1938. In addition to Burghley, Avery Brundage, Karl Ritter von Halt, Alberto Bonacossa, and Sigfrid Edstroem were appointed members to this commission.<sup>7</sup> At the Cairo session, a very brief report on doping was submitted by Burghley. As a result, the IOC condemned both the consumption of and the trade in doping substances. The IOC minutes state:

*L'usage des drogues ou des stimulants artificiel de toutes sortes est des plus condamnables, et toute personne qui reçoit ou offre de doping, sous quelque forme que ce soit, ne devrait pas être admise aux meetings d'amateurs ou aux jeux Olympiques.*<sup>8</sup>

However, it took more than twenty years for the decision is made in Cairo into action. It was the death of the Danish cyclist, Knud Jensen, at the 1960 Rome Olympic Games that forced the IOC to become more active in the fight against doping. Jensen collapsed during the competition and later died in hospital. The autopsy showed that the athlete had consumed Ronicol, which enhances blood circulation.<sup>9</sup>

### Uncoordinated Approaches to Doping Analysis

In the aftermath of the Olympic Games in Rome, and in response to the tragic death of Knud Jensen, the IOC adopted a more active role in the fight against doping. However, its actions were delayed and uncoordinated. IOC president Avery Brundage showed an increased concern in the matter following the 1960 Games, and addressed the issue during the 58<sup>th</sup> IOC Session in Athens in July 1961.<sup>10</sup> Consequently, the IOC appointed a commission to contact the Fédération Internationale de Médecine du Sport (FIMS)<sup>11</sup> about the doping problem and created a subcommittee on doping in March 1962. It was headed by IOC member and surgeon Dr. Arthur Porritt; its primary aim was to study the doping problem and give medical advice on doping matters to the IOC.<sup>13</sup> Progress was slow. Two years later, Porritt reported to the IOC Session in Innsbruck that more time was needed in order to produce a report on doping in sport despite FIMS Secretary-General Giuseppe La Cava already outlining the use of drugs in sports and their effects on performance in the *Bulletin of the International Olympic Committee* in May 1962.<sup>14</sup> Although Porritt and his colleagues on the commission, notably Dr. Ferreira Santos from Brazil, published individual articles and recommendations on the matter, neither extensive doping research was conducted, nor were there any regulations made concerning doping analysis and testing procedures. In 1966, the doping subcommittee published a recommendation to implement the list of banned substances ahead of the 1968 Olympic Games in Mexico City. However, after Porritt's resignation in the same year,<sup>15</sup> the IOC decided to change the structure of the working group and officially founded the IOC Medical Commission in August 1967. Prince Alexandre de Merode from Belgium was made its first president. The first tasks of the new Commission included the preparation of doping tests for the 1968 Olympic Games and addressing the concerns of the impact of high altitude on performance in Mexico City. Whereas the latter issue drew considerably more attention within the Commission, and preparation time for athletes in special training camps was eventually extended to six weeks,<sup>16</sup> the doping tests at the 1968 Summer and Winter Olympic Games were still uncoordinated.

Although the Games in Grenoble are widely known for being the first Olympic Games at which doping controls were officially conducted by the IOC, Dr. Jacques Thiebault, member of the IOC Medical Commission, stated in his report that there were "certain shortcomings when they [sex tests for women and doping controls] were put into practice."<sup>17</sup> For example, there was no official protocol for the doping controls. Hence, Thiebault recommended that "our Commission could perhaps carry out the dispatch of a sort of memorandum, which would be widely circulated by the I.O.C. to all those concerned with these questions." a first indication that an official doping protocol was needed.<sup>18</sup> General Coordinator at the Mexico City Games<sup>19</sup> was Dr. Eduardo Hay, member of the IOC Medical Commission and delegate of the Organizing Committee. He compiled a report after the Games, in which he outlined the different doping testing procedures, which were more comprehensive than in Grenoble but still lacked standardization. Like Thiebault, in hindsight of the Grenoble Games, he argued that standardized regulations concerning the doping analysis were needed:

*Among its functions, the Medical Commission can officially establish the analysis techniques to be applied in all sports events controlled by the I.O.C. and provide the standards of the drugs to the laboratory responsible for the analysis. It can also give counsel, as a form of collaboration, to those responsible for analysis in the future.<sup>20</sup>*

This task, as envisaged by Thiebault and Hay, would consequently fall to the persons responsible for doping control and doping analysis at the next Olympic Games in Sapporo and Munich.

### Enter Manfred Donike

After the 1968 Games, the IOC Medical Commission published its first official list of classes of banned substances, and testing procedures became more and more standardized.<sup>21</sup> However, questions of responsibilities for testing arose, with Brundage continuously trying to shift the doping controls to the International Federations. Consequently, the IOC Medical Commission decided to publish a doping control brochure to manifest its position. The brochure contained articles on the doping problem in general, doping analysis, and the technical organization of the doping controls at the 1972 Games in Sapporo and Munich. This was the first time that an official doping control program, including guidelines for the doping analysis, had been published. The chapter on doping analysis was written by Professor Arnold Beckett, who was a member of the IOC Medical Commission and a pioneer in the development of doping control and analysis.<sup>22</sup> Also involved in the preparation of the chapter was Dr. Manfred Donike, whose role was to organize the doping analysis at the Games in Munich. Donike had already been engaged in doping analysis since 1966 as part of his occupation at the German Sport University Cologne, and published his first paper on the detection of performance enhancing substances in 1966.<sup>23</sup> In 1969 he was successful in his attempt to synthesize N-Methyl-N-trimethylsilyltrifluoroacetamid, which is still used as a substance for derivatisation in gas-chromatography (GS) today. Due to his previous achievements, the Organizing Committee of the Munich Games chose him and the doping laboratory at the German Sport University to coordinate and supervise the doping controls at the Munich Games. Consequently, Donike was also present at the preparatory meetings of the IOC Medical Commission and the Organizing Committee prior to the Games, from which the analytical methods for the examination of the doping samples were determined.<sup>24</sup>

The doping protocol for the Munich Games for which Beckett (for the IOC Medical Commission) and Donike (for the Organizing Committee) were primarily responsible, and which was published in the IOC brochure, can be separated into five parts: (1) selection of athletes, (2) sample-taking, (3) analysis, (4) evaluation of the results of the analysis, and (5) sanctions. Whereas parts 1, 2 and 5 were under the responsibility of the IOC Medical Commission, Donike and his team were responsible for parts 3 and 4, the analysis and the evaluation of the results of the analysis. The report on doping controls at the Munich Games states that, for many decades, doping analysis was the weak point of doping controls, and that existing methods were not sufficient to prove the usage of certain substances.<sup>25</sup> However, in the years leading to the Munich Games, methods were developed that led to the possibility of standardizing the analytical part of the doping controls. Since the main challenge of doping analysis during mega-sporting events is the large number of samples that have to be analyzed in a short period of time, the methods have to be standardized and chosen carefully.<sup>26</sup> The following analytical steps were undertaken during the Games in Munich, thus instituting the first protocol for doping analysis within the Olympic Movement:<sup>27</sup>

- 1 If possible, the analysis has to be conducted within 24 hours, starting with the arrival of the sample at the laboratory.

- 2 The analysis encompasses the following steps:
  - 2.1 Screening  
Thin-layer chromatography on non-volatile substances and gas chromatography on volatile substances.
  - 2.2 Identification
    - a) gas chromatography with two columns of different polarity and derivation before the gas chromatography analysis or the assay of the Kovats-Indices.
    - b) Alternatively: combined chromatography (thin-layer and gas) with mass or infrared spectroscopy.
    - c) A substance is proven if the measured value coincides with the value of an authentic comparable value
- 3 With the exception of the head of the laboratory and the laboratory staff only the following people can get access to the labs: Members of the IOC Medical Commission, people authorized by the Head of the IOC Medical Commission, the Head of the doping controls.

The doping control team in the laboratory in Munich eventually included six chemists, six biologists, two medical doctors, three chemical-technical assistants, two technical assistants, and one secretary.<sup>28</sup> President of the Munich Medical Commission was Professor Gottfried Schönholzer, who was more involved in the administrative and political tasks rather than the actual testing procedures.<sup>29</sup> Doping protocol compliance control was under the supervision of Beckett and Donike. This was also pointed out in a letter by Brundage to the President of the Organising Committee of the Munich Games, Willi Daume, in which he calls Daume's attention to the need for strict observance of the cooperation between the IOC Medical Commission and the doping laboratories. Due to the intervention of Professor Schönholzer, laboratory processes were disrupted, a matter that greatly concerned the IOC President.<sup>30</sup> These complications have also been noted in the report of the doping control team.<sup>31</sup> Thus, one can say that Brundage quickly realized the significance of Donike's role in the conduct of doping controls and the analysis of samples. As Beckett was equally knowledgeable regarding the technical questions, Brundage wanted the two to cooperate directly. It is also notable that prior to the Games, Donike received a letter from the German Democratic Republic inquiring whether four of their doctors could assist the doping analysis. However, this request was denied by the IOC Medical Commission and Donike.<sup>32</sup>

In total, 2,079 athlete urine and 65 blood samples were taken and analyzed by the 1972 Munich doping laboratory, all in accordance with the newly implemented protocol. This remains the third highest number of samples taken at the Olympic Games to date.<sup>33</sup> Even Manfred Donike himself noted that the doping controls conducted at the 1972 Olympic Games in Munich were the first ones "which deserve this assertion".<sup>34</sup>

## Conclusion

As outlined, the IOC has shown a long-standing interest in the problem of doping within the Olympic Movement. As early as 1937 a Commission was set up to conduct research on the matter. However, not only did it take until the death of cyclist Knud Jensen for the IOC to act more rigorously, it would take a further 35 years until standardized doping controls were introduced at the Olympic Games in Munich in 1972. The wide-ranging effect of the newly adopted doping protocol and its implementation under the supervision of the German biochemist Manfred Donike from the German Sport University Cologne can, however, not be emphasized highly enough. Many national and international

federations have adopted the standards set in Munich; what is more, many of the regulations that were introduced for the doping analysis at the 1972 Munich Olympic Games are still used. For example, laboratories still have to provide reports within 24 hours, every testing procedure must contain the analysis of four control samples, and the GC separation and MS detection instruments that are used today have been developed on the basis of apparatuses used by Donike in 1972.<sup>35</sup> It was the aim of the doping control team of the Munich Games to “set internationally approved standards with the doping controls at the 1972 Olympics in Munich”,<sup>36</sup> and the long-lasting legacy leaves no doubt that this objective has been reached. Furthermore, Arnold Beckett and Manfred Donike were given the responsibility to accredit and supervise doping laboratories at future Olympic Games. Although the IOC was, and still is, heavily criticized for its doping policies and the inconsistency in protecting the honourable and ethically justifiable dimensions of its motto *Citius—Altius—Fortius*, one has to acknowledge that the introduction of tests and an official doping testing protocol at the beginning of the 1970s speak to the organization’s awareness of the increasing problem. The numerous scientific advances in doping analysis made in the same time period certainly supported this attitude as one should not forget that success in doping control depends on functioning doping analysis procedures. In light of this, the 1972 Olympic Games in Munich can be seen as the turning point in the doping control system within the Olympic Movement, which led the way for extensive doping controls in subsequent Olympic Games.

## Endnotes

- 1 Norbert Müller (ed.), *Olympism. Selected Writings* (Lausanne: Comité International Olympique, 2000), 210.
- 2 Pierre De Coubertin, “Sports Psychology,” in *Olympism. Selected Writings*, ed. Norbert Müller (Lausanne: Comité International Olympique, 2000), 148: “The task that he [sportsman] accomplishes is one that he has set for himself. Since he does not need to return to this task the very next day to earn his living, there is no reason for him to conserve his energy. In this way he is able to cultivate effort for effort’s sake, to seek out obstacles, to place a few obstacles in his own path, and always to aim a little higher than the level he must achieve.”
- 3 Stephan Wassong and Karl Lennartz, “Olympisme,” in *Dictionnaire Culturel Du Sport*, ed. Michael Attali and Jean Saint-Martin (Paris: Armand Colin, 2010), 514.
- 4 Minutes of the 37<sup>th</sup> Session of the IOC, Warsaw, 7-11 June, 1937, 2. In these days doping could only mean the consumption of stimulants, narcotics and possibly alcohol. Testosterone was discovered in 1935 for which the noble prize has been awarded. Of course, steroids were known before but the genuine anabolic steroid was not characterized before 1935.
- 5 Research on this is followed in a bigger research project on the history of doping by the two authors of the article .
- 6 Paul Dimeo: *A History of Drug Use in Sport. 1876 – 1976. Beyond Good and Evil*. (London and New York: Routledge, 2007), 13.
- 7 Minutes of the 37<sup>th</sup> Session of the IOC, Warsaw, 7-11 June, 1937.
- 8 “The use of drugs or artificial stimulants of any kind must be condemned most strongly, and everyone who accepts or offers to dope, no matter in what form, should not be allowed to participate in amateur meetings or in the Olympic Games.” Minutes of the 38<sup>th</sup> Session of the IOC, Cairo, 13-18 March, 1938.
- 9 Dimeo, *History*, 13.
- 10 Minutes of the 58<sup>th</sup> Session of the IOC, Rome, 22-24 August, 1960.
- 11 Alison M. Wrynn, “The Human Factor: Science, Medicine and the International Olympic Committee, 1900–70,” *Sport in Society: Cultures, Commerce, Media, Politics* 7, no. 2 (2008), 211-231. The IOC had cooperated with the Fédération Internationale de Médecine du Sport already since 1952.
- 13 Minutes of the 58<sup>th</sup> Session of the IOC, Rome, 22-24 August, 1960.

- 14 Giuseppe La Cava, "The use of drugs in competitive sport," *Bulletin du Comité International Olympique* 78, May (1962), 52-53.
- 15 He was to become governor of New Zealand
- 16 For a complete history on the high-altitude issue prior to the Mexico City Games, see: Alison M. Wrynn, "A debt was paid off in tears': Science, IOC politics and the debate about high altitude in the 1968 Mexico City Olympics," *The International Journal of the History of Sport* 23, no.7 (2006), 1152-1172.
- 17 Report by Doctor Thiebault on the Grenoble Games to the IOC Medical Commission, Grenoble, 1968.
- 18 *Ibid.*
- 19 The short period in the preparation to the Mexico City Games was interrupted by a struggle between Brundage and De Merode. Whereas the former one wanted to give the responsibility of testing to the International Federations, De Merode eventually succeeded with his argumentation that fair testing procedures could only be implemented through the IOC Medical Commission. See: Thomas Hunt: *Drug Games. The International Olympic Committee and the Politics of Doping, 1960-2008.* (Austin, TX: University of Texas Press, 2011), 36.
- 20 General Report on the Work of the Medical Commission of the International Olympic Committee during the Games of the XIXth Olympiad presented by Dr. Eudardo Hay, Member of the Organizing Committee, Mexico, September-October, 1968.
- 21 Peter Hemmersbach, "History of mass spectrometry at the Olympic Games," *Journal of Mass Spectrometry* 43, no.7 (2008), 840.
- 22 Dimeo, *History*, 106. Beckett and his colleagues from the School of Pharmacy at Chelsea College of Science and Technology in London had worked on methods to find drugs already since 1958.
- 23 Manfred Donike, "Der Dopingnachweis mit Hilfe gas-chromatographischer Methoden," *Sportarzt und Sportmedizin* 2 (1966), 81.
- 24 Minutes of the meeting of the IOC Medical Commission in the offices of the Organizing Committee in Munich, Munich, 12 June, 1970.
- 25 Dirk Clasing, Manfred Donike & Armin Klümper "Dopinkontrolle bei den Spielen der XX. Olympiade, München 1972, Teil 2," *Leistungssport* 2 (1974), 192.
- 26 Clasing, Donike & Klümper, "Dopingkontrolle – Teil 2," 193.
- 27 Clasing, Donike & Klümper, "Dopingkontrolle – Teil 2," 196.
- 28 *Olympic Report Munich 1972: Volume 1 The organization* (Munich: Organizing Committee for the Games of the XXth Olympiad Munich 1972, 1972), 116.
- 29 Minutes of the Meetings of the IOC Medical Commission, Munich, 21<sup>st</sup>, 23<sup>rd</sup>, 25<sup>th</sup> and 26<sup>th</sup> August, 1972, 9. For example, he held the negotiations with the different International Federations concerning the numbers and locations of tests. In particular in Yachting this was an important issue as the events were staged in Kiel and consequently doping controls were conducted there as well.
- 30 Avery Brundage. Letter to Willi Daume, 4<sup>th</sup> September 1972, IOC. Brundage also recommends that Professor Schönholzer, who had interfered the doping controls, should not be involved in the doping control.
- 31 Dirk Clasing, Manfred Donike & Armin Klümper "Dopinkontrolle bei den Spielen der XX. Olympiade, München 1972 (III)," *Leistungssport* 4 (1975), 303.
- 32 Minutes of the Meetings of the IOC Medical Commission, Munich, 21<sup>st</sup>, 23<sup>rd</sup>, 25<sup>th</sup> and 26<sup>th</sup> August, 1972, 2-3. Although the presence of GDR doctors was not granted throughout the Games, the Medical Commission decided on the same meeting that the laboratories will be opened for one doctor from each nation prior to the Games.
- 33 Hemmersbach, "History", 840.
- 34 Manfred Donike, "Dopinganalytik," in *Olympische Leistung. Ideal, Bedingungen, Grenzen. Begegnungen zwischen Sport und Wissenschaft*, ed. Nationales Olympisches Komitee für Deutschland, Bundesinstitut für Sportwissenschaft & Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. (Köln: Bundesinstitut für Sportwissenschaft, 1981), 116.
- 35 Hemmersbach, "History", 839.
- 36 Clasing, Donike & Klümper, "Dopingkontrolle (III)," 306.