Arbitration CAS 98/222 B. / International Triathlon Union (ITU), award of 9 August 1999

Panel: Prof. Mirko Ilesic (Slovenia), President; Dr. Christian Krähe (Germany); Mr. Olivier Carrard (Switzerland)

Triathlon
Doping (nandrolone)
Threshold for endogenous substances
Strict liability
In dubio pro reo

1. **Low concentrations of nandrolone metabolites no longer permit a reliable conclusion as to the ingestion of nandrolone. In other words, it appears to be beyond scientific doubt that such low concentrations falling within what is often referred to as the "grey zone" (i.e., concentrations between 2,0 and 5,0 ng/ml), can as well be the result of endogenous production of the human body. When the concentration of nandrolone falls within the "grey zone", the likelihood that nandrolone is produced endogenously, is decreasing exponentially within the limits of the "grey zone".**

2. **The rule on strict liability is essential and indispensable for an efficient fight against doping in sport and for the protection of fairness towards all competitors and of their health and well-being. The principle of strict liability rule does not exempt the sports federations to prove the existence of a doping offence. The effect of any rule of law imposing strict liability is merely to render obsolete the proof of guilt on the part of the person subjected to the regime of strict liability, while on the other hand such rule does not eliminate the need to establish the wrongful act itself and the causal link between the wrongful act and its consequences.**

3. **The legal impact of a "grey zone" should be reflected in a rule that, in such cases, the sanctioning body can no longer rely on legal presumption that the presence of a prohibited substance is a consequence of external application, but should provide additional evidence supporting this presumption, or, at least, excluding all other causes.**

On 7 June 1998, the Appellant participated in the "Powerman Long Distance World Championships 1998" in Zofingen, Switzerland. Immediately after the competition, he had to undergo a doping control.

The doping analysis was carried out by the "Laboratoire Suisse d'Analyse du Dopage" in Lausanne, Switzerland ("LAD"), a laboratory duly accredited by the International Olympic Committee ("IOC"). By a letter dated 24 June 1998, the LAD informed the Anti-Doping Commission of the Swiss Olympic Association that the sample A-9458 indicated the presence of norandrosterone (3ng/ml) and noretiocholanone (3ng/ml). The Appellant was informed of the results of the analysis the next day by a letter of the Swiss Triathlon Federation ("STF").

On 1 July 1998, the Appellant requested from the Swiss Olympic Association ("SOV") that the "B" sample of his urine be tested and at the same time declared that the appearance of norandrosterone could be the consequence of other causes, such as consumption of meat containing the substance.

The "B" sample was tested at LAD on 13 July 1998, and the following day LAD informed SOV that the sample B-9458 revealed the presence of norandrosterone and noretiocholanone, without specifying the concentration of either of the two metabolites.

An oral hearing was called by STF for 29 July 1998 and one month later, i.e. on 29 August 1998, the Doping Commission of the STF brought a decision by which the Appellant was:

- suspended from any duathlon and/or triathlon competition in Switzerland and abroad for the period of one (1) year, starting from 1 September 1998,
- disqualified from the Zofingen World Championship as well as from all other competitions to which the Appellant had participated between 7 June and 1 September 1998.

On 19 October 1998, the Appellant applied for a review of this decision by the ITU Doping and Appeals Board. Following a hearing held by the Board on 10 December 1998 by teleconference, the Board denied the appeal and upheld the suspension of the Appellant. The Appellant was informed about the decision over the phone the same day and was sent an unsigned draft of a written decision on 21 December 1998. A signed copy was sent to the Appellant at a later date.

The ITU Doping Control Rules (DCR) provide in section 5.11: "*An athlete or National Federation that loses a hearing or an appeal to the ITU Executive Board Doping Hearings and Appeal Board has the right to appeal to the Court of Arbitration for Sport*".

On 29 December 1998, the Appellant lodged his Statement of Appeal and Request for provisional measures with the CAS. An appeal brief was filed by the Appellant on 8 January 1999 and an Addendum to this Brief on 11 January 1999.

The Respondent lodged his Statement of Defence on 22 January 1999 and a supplementary Statement to the Addendum of Appeal Brief on 23 January 1999.

On 2 February 1999 the Deputy President of the CAS Appeals Arbitration Division issued an Order in which he upheld the application for preliminary relief and ordered the stay of execution of the sanctions pronounced against the Appellant.

A hearing was held in Lausanne on 15 April 1999 in the presence of the Appellant and his legal representative. At this hearing, written evidence was examined by the Panel and Dr. M. Saugy was heard and examined as expert-witness.

By a letter dated 29 February 1999, the Respondent declared that he would not be present or represented at the hearing, unless its presence was absolutely necessary or would result in a judgement taken by default. At the same time, the Respondent reaffirmed previous written statements and expressed the belief that no witnesses or oral arguments were necessary. On 4 March 1999, the CAS Court Office acknowledged receipt of ITU's letter and confirmed that the Panel would consider the arguments put forward by ITU in its written statements. The hearing was therefore held in the absence of the Respondent.

The contentions of the Appellant can be summarised as follows:

- the Appellant has never applied nandrolone or any other prohibited substance and, in general, he takes great care of his nutrition;
- 3 ng/ml of norandrosterone or noretiocholanone are not conclusive evidence for the existence of nandrolone; the sanctioning body has failed to prove the existence of forbidden substance beyond reasonable doubt;
- the recently introduced more sensitive techniques of analysis have caused that the prior assumption that any finding of norandrosterone and noretiocholanone was sufficient evidence for the existence of nandrolone, could no longer be upheld; this was recognised also by the IOC Subcommission Doping and Biochemistry of Sport and expressed in a letter by its Secretary of 22 August 1996;
- different experts have reported that the results of their research confirmed that, in particular circumstances, these substances can be produced by the human body and recommended caution in sanctioning athletes in cases of concentrations between 1 and 5 ng/ml of NA or NE;
- the Appellant has undergone – voluntarily and at his own expenses – extended tests with Dr. L. Dehennin at the Laboratory of Châtenay-Malabry, France (L.A.B.-F.N.C.F); these tests showed the presence of NA and NE in significant concentrations (0.07 – 2.1 ng/ml for NA and 0.12 – 3.0 ng/ml for NE) and led Dr. Dehennin to conclude that "*the urinary excretions of NA and NE by B. are very unusual and require further investigation*";
- the procedure of doping control following the Zofingen event was incorrect, as the SOV forms were used instead of the ITU forms and thus the specific gravity and pH of the urine was not indicated; also, the report on analysis of the "B" sample by LAD does not specify the concentrations of NA and NE which were detected;
- the procedure before the STF and ITU was incorrect, as the Swiss federation first took a decision not to sanction the Appellant and only after disapproval of the ITU eventually obeyed to the ITU.

On the basis of the above arguments, the Appellant requested the following relief:

- to overturn the decision of ITU Hearing and Appeals Board of 10 December 1998;

- to lift the suspension of the Appellant;
- to annul the disqualifications of the Appellant between 7 June 1998 and 1 September 1998 and to confirm his results and titles achieved during this period;
- to oblige the Respondent to contribute to the costs of the Appellant related to his appeal.

The contentions of the Respondent can, on the other hand, be summarised in the following way:

- the use of ITU forms for doping control is not mandatory, provided that other forms used fulfil certain minimum criteria; also, the fact that that concentration of the "B" sample was not indicated, does not constitute a departure from standard procedure, where the "B" sample is typically used as a "first appeal" to confirm the presence of prohibited substances;
- the absence of measurement of specific gravity does not invalidate the results of the analysis, as the sole purpose of this measurement is to avoid collecting "false negative samples" and to allow the sampling officers the opportunity to demand another sample from the athlete on site; in any event, the specific gravity of the urine in question was not abnormal;
- as to the question of whether 3,0 ng/ml of NA or NE in the sample are conclusive evidence of doping, it has been consistently held by the IOC Medical Committee that such a level is "absolute evidence of doping". The letter of Dr. Segura contains no clear modification of this rule and can in no event be considered as an amendment of the IOC Medical Code;
- while acknowledging that the subsequent research of the Appellant at the Châtenay-Malabry laboratory was interesting, the Respondent observes that it was not conducted under controlled supervision; on the other hand, suggestions of other experts remain only suggestions until action by the IOC Medical Committee;
- finally, the Respondent maintains that the ITU has strictly and diligently applied the existing rules and therefore – in the case of a finding by CAS in favour of the Appellant – the Respondent strongly urges a thorough revision of the procedures and rules of the IOC Medical Committee.

The Respondent requests the Panel:

- to confirm the findings of the ITU Hearing and Appeals Board of 10 December 1998;
- to continue the suspension of the Appellant;
- to confirm the disqualifications imposed on the events contested between 7 June and 1 September 1998; and
- not to oblige the Respondent to contribute to Appellant's costs.

LAW

1. The Panel first dealt with the alleged infringements of the doping control procedure. As for the use of the forms, it was established that the SOV form which was used in the instance, did not contain the indication of the specific gravity of the urine sample as required by the ITU doping rules (Rule 3.14 of ITU DCR). However, according to ITU DCR, *"departures from procedural guidelines shall not invalidate the finding of a doping offence, unless it was such as to cast real doubt on the reliability of the finding*" (Rule 1.10).

2. In the circumstances of this case, the absence of specific gravity indication on the sample had no impact on the finding of its content. As it was confirmed by expert testimony of Dr. Saugy, the purpose of measurement of specific gravity of urine is, on one hand, to eliminate excessively diluted samples and, on the other hand, to provide for corrections of results in case of a specific gravity exceeding 1,020. As it was confirmed by Dr. Saugy, the specific gravity was successfully measured during the analysis of the sample and the result obtained already took account of the appropriate corrections. As the specific gravity of urine does not change to a greater extent between the moment when the sample is taken and its analysis in the laboratory, the very fact that the analysis of the sample at LAD was positive proves that the absence of measurement on the spot had no impact on the findings of the subsequent analysis.

3. Similarly, the absence of indication of concentrations of NA and NE in the "B" sample cannot cast any doubt on the laboratory findings, as the analysis of the second sample serves mainly to confirm the presence of the substance and the identity of the two samples. The possibility that the concentrations of metabolites in the "B" sample were lower than in the "A" sample does not on its own invalidate the analysis of the first sample; such possible discrepancies in measurements should, however, be taken into account and examined within the broader context of reliability of findings involving low concentrations of nandrolone metabolites, addressed later on in this award.

4. The Panel also examined the question whether the manner in which the hearing was held before the ITU Hearings and Appeals Board was in accordance with the rules of Chapter IX of the IOC Medical Code. While it is true, that the "teleconference" is foreseen as the normal way in which an appeal hearing is conducted by the ITU rules (ITU DCR, 5.9.), Article VII of Chapter XI of the IOC Medical Code provides that "*the right to be heard includes the right ... **to appear personally***" (emphasis added). As long as the right of the Appellant to be heard is respected (which is not disputed by the parties in this case), such a teleconference might, on the other hand, indeed permit reasonable use of time and resources of sport federations and their members. In any event, the Panel considered that any possible violation of the right to be heard was successfully cured by the hearing during the procedure before the CAS.

5. Finally, the Panel found no reason for doubt that the expert opinion of the laboratories was correct and impartial. The mere fact that the expert testimony was provided by a laboratory in the Appellant's country, does not render such testimony less trustworthy, not only because

LAD is an IOC-accredited laboratory, but also with due respect to the fact that the positive findings on which the Respondent itself relied in applying the sanctions against the athlete, derive from the very same laboratory. It should also be noted that the IOC Medical Code (Chapter X: Appeals, Article III) provides for a presumption that the IOC accredited laboratories have acted in accordance with prevailing and acceptable standards of care. The Panel sees no reason why this presumption, applicable to the doping testing and custodial procedures, should not apply equally to cases where the same laboratories and their representatives provide expert testimony in appeal procedures. While it is true that, according to the IOC Medical Code, this presumption is rebuttable, it is also true that the Respondent has provided no evidence to the contrary.

6. It is not disputed by the parties that the presence of nandrolone metabolites in a concentration exceeding 2 ng/ml was found in the urine of the Appellant. According to established practice up to date, quantities exceeding 2 ng/ml have been deemed sufficient to support a positive finding of a doping offence.

7. The particular issue to be decided in this case is, however, whether the relatively low quantities of nandrolone metabolites call – alone or in combination with other circumstances of the case – for a different application of the relevant anti-doping rules of ITU and IOC. In order to address this question properly, account should be taken of the recent development of the "state of arts" concerning the possible causes of presence of nandrolone metabolites in human body.

8. It is therefore appropriate to determine whether the actual state of medical science still allows a conclusion or, at least, permits a presumption that the existence of nandrolone metabolites in the urine result from external application of nandrolone.

9. In this respect, it has been demonstrated by several different expert studies and opinions delivered in the last years, and confirmed also through the testimony of the expert witness Dr. Saugy at the hearing, that the development of science in the past few years has led to new findings, partly due also to new measurement techniques and improved equipment.

10. While in earlier days it was possible to maintain that the mere existence of metabolites is conclusive of the presence (application) of nandrolone, the new technique of mass spectrometry (MS/MS), introduced in doping analysis after 1996 enabled the detection of the metabolites already at significantly lower concentrations. The reaction of the science was to warn the interested persons that such low concentrations no longer permit a reliable conclusion as to the presence of nandrolone. In other words, it appears to be beyond scientific doubt that such lower concentrations falling within what is now often referred to as "the grey zone", can as well be the result of endogenous production of the human body (see CAS 98/212 UCI v. M. and FCI and CAS 98/214 B. v. FIJ).

11. The IOC Medical Commission addressed this issue in its document *entitled "Analytical criteria for reporting low concentrations of anabolic steroids"*, circulated on 7 August 1998 to the IOC accredited laboratories. In this document, which has the nature of a recommendation

addressed to the IOC laboratories and does not constitute a legal rule, the threshold of 2,0 ng/ml was set as a minimum concentration of norandrosterone **below** which no adverse report on doping should be produced. This does not mean, however, that findings **above** the 2,0 ng/ml should automatically lead to doping sanctions. The relevant part of the document merely states that *"...identification of only 19 – norandrosterone is sufficient to report for **possible** sanctions*" (emphasis added).

12. This issue was developed further in a scientific report delivered by Dr. Laurent Rivier, Director of the LAD Lausanne, at the CAS Seminar held in Lausanne on 8 and 9 December 1998. On the basis of different tests carried out on several groups of athletes, including professional and amateur football players, Dr. Rivier recommended to handle the cases involving nandrolone metabolites in the following way:

    - no report on metabolite findings in case of concentrations below 1,0 ng/ml,
    - report recommending sanctions in case of concentrations above 5,0 ng/ml,
    - report findings between 1,0 and 5,0 for information purposes only and recommend additional target testing of the athlete concerned.

13. Dr. Saugy essentially repeated the same state of research in his testimony at the hearing of 15 April 1999. He also confirmed that within what is now referred to as the "grey zone" (i.e., concentrations between 1,0 and 5,0 ng/ml), the likelihood that nandrolone is produced endogenously, is decreasing exponentially.

14. On the basis of these scientific developments, the Panel considers it necessary to determine what is the legal impact of the emergence of such a "grey zone".

15. While the jurisprudence of CAS has on several occasions upheld the rules enacted by different national and international federations according to which an athlete is strictly liable for a doping offence (see e.g. CAS 92/63 G. v. FEI; CAS 95/141 C. v. FINA in *Digest of CAS Awards 1986-1998*, Staempfli Editions, Berne 1998; see also CAS 96/156 F. v. FINA and more recently CAS 98/212 UCI v. M. and FCI and CAS 98/214 B. v. FIJ), it seems nevertheless appropriate to examine the exact scope of the "strict liability" ("responsabilité objective") rule applicable in doping cases in general and in this case in particular.

16. This Panel shares the opinion expressed in the above quoted awards that the rule on strict liability is essential and, indeed, indispensable for an efficient fight against doping in sport and for the protection of fairness towards all competitors and of their health and well-being (cf. CAS 96/156 F. v. FINA p. 42). In fact, in the opinion of this Panel, as far as the proof of guilt is concerned, the rule on strict liability should be construed as going even further than creating merely a presumption of guilt on the side of the athlete. The concept of "responsabilité objective" in civil law (where this rule stems from) is stricter than that: by making the subject liable regardless of his guilt, it renders the question of guilt irrelevant and allows for exoneration only in very limited and usually exhaustively listed cases, such as "force majeure" or wrongful act of a third person (see also the discussion of the term "strict liability"

in the context of doping in CAS 95/142 L. v. FINA, in *Digest of CAS Awards 1986-1998*, op. cit., p. 230, n° 13).

17. Applied to doping cases, this concept would mean that not only the sanctioning body does not bear the burden to prove that the athlete is guilty for having "taken" the prohibited substance, but also that even a successful proof by the athlete that there was no guilt on his side (i.e. no intention nor negligence) would not exempt him from liability. This is, on one hand, a faithful transposition of the civil (tort) law concept of "strict liability" (as distinguished from a "presumed guilt"), and, on the other hand, also the only interpretation capable to ensure efficient fight against doping. If a successful proof of an athlete that he/she had no intention to absorb the substance was sufficient to discharge him/her from liability, this would open the floodgates (to use the language applied in CAS 96/156 F. v. FINA) for exoneration in all cases where the substances has been absorbed unknowingly, e.g. due to intervention of a trainer, friend or similar, thus in cases which should clearly be caught by sanctions if the fight against doping is to be made efficient.

18. In other words, while sharing the opinion, expressed in C. v. FINA (CAS 95/141, in *Digest of CAS Awards*, op. cit., p. 220, n° 13), that "*if for each case the sport federations had to prove the intentional nature of the act ..., the fight against doping would become practically impossible*", this Panel would like to add that even a proof of no intent or no negligence on the side of the athlete would not suffice to discharge him/her from the strict liability. This seems to be in line with the jurisprudence of the CAS, which has occasionally allowed defences of "no guilt", but principally as a potentially extenuating circumstance, i.e. an element to be taken into account for the determination of the appropriate sanction or for a possible mitigation of an automatic time-ban imposed by the rules of sport federations (see e.g. CAS 96/156 F. v. FINA, consideration 13.2 and CAS 95/142 L. v. FINA, in *Digest of CAS Awards*, op. cit., p. 230, n° 14).

19. The situation in the present case is, however, different from those dealt with above. The issue is not whether the Appellant has absorbed the forbidden substance intentionally or negligently, but rather whether he has absorbed it at all.

20. The principle of strict liability rule does not exempt the sports federations to prove the existence of a doping offence. As it has been discussed above in the context of law in general, the effect of any rule of law imposing strict liability is merely to render obsolete the proof of guilt on the part of the person subjected to the regime of strict liability, while on the other hand such rule does not eliminate the need to establish the wrongful act itself and the causal link between the wrongful act and its consequences.

21. The rules against doping in sport were designed in order to fight against certain types of practices in sport competition and training. Grammatically, "doping" means a certain behaviour of an athlete or another related person. Also, according to the Chapter II of the IOC Medical Code, doping consists of (1) "the administration of [prohibited] substances" and (2) "the use of various prohibited methods".

22. However, it has become customary for sport governing bodies to list among penalized doping offences also factual findings which cannot be classified as "behaviour" of an athlete. Such is also the case of ITU Doping Rules which – in the section providing "definition of doping" - even commence the list of doping offences with *"the finding in an athlete's body tissue or fluids of a prohibited substance*" (Rule 2.2). As a result of these rules, emphasis (and, indeed, the critical element of the anti-doping procedures) has been shifted from the wrongful act itself to its consequences.

23. While – from the point of view of sports federations – such a shift is easily understandable and could be explained by similar policy considerations as quoted above in the context of the discussion of the strict liability rule, and namely by the requirement of efficient fight against doping (see above considerations), it is equally true that this shift from the wrongful act to its consequences is capable to have significant impact on the legal situation of the accused athlete and on his right of defence. It is therefore appropriate to scrutinize such regulatory practices and its implementation in practice also from the aspect of general principles of law and the requirements of fair trial.

24. In the opinion of this Panel, a rule of law penalizing a forbidden consequence instead of a wrongful act can be justified – when observed from the aspect of general principles of law – only as long as there is no doubt whatsoever that the incriminated consequence has occurred and can occur exclusively as a result of the wrongful act against which the rule is directed.

25. In other words, if – for practical reasons related to enforceability – the governing body chooses to penalize a consequence (presence of forbidden substances) instead of the wrongful act itself (application of such substances), the causal link between the latter and the former must be absolutely clear and indisputable.

26. In civil (tort) law, there is no general presumption of causal link between the wrongful act and its consequences. Even in cases of strict liability, where no proof of guilt is required, the causal link between the latter and the former still remains an issue to be proved by the party invoking such liability. Having in mind the specific disciplinary ("quasi-penal") character of the anti-doping investigations and sanctions, it seems to be hardly acceptable to interpret the rule on strict liability against the person submitted to such liability even more severely than in civil law in which this concept has its roots. The existence of a causal link between a wrongful act and its consequence therefore remains to be an item to be proven by the party whose arguments are based on such consequence.

27. Although the question of causal link is principally a legal issue, law may (and must) sometimes rely on other rules of science in order to determine the relationship between an event and its consequences. If, for example, the medical science tells us that a particular consequence (disease) can occur only as a result of external infection, than a successful proof of such disease requires no further proof of causal link. If, on the contrary, such disease can arise from a number of different causes, than the proof of actual disease would not be considered sufficient in law and the claiming party will be requested to prove that the disease has actually occurred as a consequence of external infection. It appears, therefore, that in certain

circumstances the scientific rules eliminate the need of proof of causality by creating a "*scientific*" (as opposed to "legal") presumption concerning a certain course of events.

28. As already observed, such "scientific presumption" may justify a legal rule sanctioning a consequence of a wrongful act and not the act itself only in case where the science leaves no doubt that the consequence can occur only in one single manner, i.e. by the wrongful act. If this might have been the case of anti-doping rules and procedures in their early years, it has been demonstrated recently that in particular circumstances, such as low concentrations of certain anabolic agents, this scientific presumption can no longer be considered as absolute and irrebuttable (see also above considerations). In this way, the rule sanctioning the presence of a substance and allowing no discussion of the real cause of such presence, would – according to this Panel – no longer be justified.

29. Applied to the circumstances of this particular case, the rule of strict liability of the athlete merely eliminates – as it has already been explained – the need for the sanctioning body to prove the guilt (i.e., intention or negligence) of the athlete for the ingestion of the substance. The same rule does not, however, eliminate on its own the need to prove that the presence of the metabolites was a consequence of "ingestion" (external application).

30. In the opinion of the Panel, the interpretation of the relevant ITU rules leads to a similar conclusion. Namely, the Rule 2.6. of the ITU Anti-Doping Rules states that "***reasons of*** *ingestion of a banned substance need not be established in order to determine whether or not a doping offence has been committed*" (emphasis added). The Respondent himself, while referring to this rule, acknowledges that *"this rule was specifically created to address situations where an athlete claims to have been given a substance by a coach or parent unknowingly*" and goes on to conclude that *"[I]t is the athlete's responsibility for everything he or she puts in his or her body*".

31. Applying the interpretation *argumentum a contrario*, the ITU Rule quoted above could also be interpreted in the sense that the "ingestion" itself must nevertheless be established. In this respect, this Panel shares the opinion expressed in the case F. v. FINA 96/156 (consideration 13.3) that the rules attempting to impose strict liability and to allow no defences at all should be "*absolutely crystal clear and unambiguous*" and that any ambiguity in such rules should be construed in favour of the accused athlete.

32. On the basis of the above, and in the light of recent developments of science, the Panel considers that, in spite of the strict liability rule, the real cause which led to the presence of the metabolites in the urine of the athlete should nevertheless be explored.

33. It remains to be seen who has to prove the (in)existence of the causal link between the application of a forbidden substance and the presence of its metabolites in the urine. In this respect, both legal and policy considerations should be taken into account.

34. According to this Panel, it is a general rule of law that each party should bear the *onus probandi* with respect to all facts on which it relies in its conclusions, except where such burden has been shifted by a legal presumption, which is not the case in this discussion.

35. It has been demonstrated above that in the area where a "grey zone" has been created due to uncertainties expressed by the science, an absolute presumption that the presence of metabolites is a consequence of external application, could no longer be upheld. In the absence of such presumption, the burden of proof should be distributed in a legally justified and equitable manner.

36. It seems therefore proper to distinguish this type of cases related to substances produced endogenously from the cases where the presumption of guilt is the main issue and where it is clearly left to the accused athlete to discharge him(her)self by exoneration, i.e. by providing conclusive evidence rebutting the presumption laid down by the rule of law applicable in the circumstances.

37. As it is well known in other fields of law, the particular problem of proof in the field of causality lies in the possible parallel impact of several causes potentially leading to the same consequence. As soon as the science admits that more than one cause can lead to the same result, the legal issue arises who has to prove the exact cause of a given consequence. However, in the majority of cases in real life, it will be impossible for any of the parties to prove that the result has occurred exactly due a specific cause ("*probatio diabolica*"). To charge one of the parties with such a heavy burden would, in fact, amount to a presumption, rebuttable on its face but irrebuttable in the reality. Therefore, alternative ways of proving the causal link must exist, such as, e.g., elimination of other causes: a party requested to prove the causal link and unable to demonstrate that a particular cause has led to the consequence, can nevertheless be deemed successful, if it can provide proof excluding all other possible causes.

38. In the case before us, where we have to deal with a typical example of multiple and possibly parallel causes leading to the presence of the forbidden substance, it would be unrealistic to require from the Appellant to establish that the presence of metabolites was not and could not have been the external application of nandrolone: even if alleged by the athlete, it could hardly be supported by convincing evidence.

39. The situation is different, however, with respect to the proof which could have been provided by the Respondent. It is not unrealistic to require from the sanctioning body the proof that other scientifically possible causes did not lead or could not have led to the forbidden result in this particular case. An order by the sports federation that the athlete should undergo additional out-of-competition testing could, for example, constitute a valid proof to that effect if the findings demonstrated that during these additional testings the forbidden substances were on no occasion produced endogenously by the athlete's body.

40. According to this Panel, the legal impact of a "grey zone" created by scientific uncertainty should be reflected in a rule that, in such cases, the sanctioning body can no longer rely on legal presumption that the presence of a prohibited substance is a consequence of external application, but should provide additional evidence supporting this presumption, or, at least, excluding all other causes.

41. There is, however, another reason why a lower degree of proof from the part of the athlete should be considered sufficient in cases falling within the "grey zone". Namely, account should be taken of the differences between civil (tort) law on one hand and quasi-penal and disciplinary proceedings on the other hand.

42. In civil (tort) law, the burden of proof is clear-cut and its sharp edge has the effect to reverse the case against the party which has failed to provide the required proof. This is true both in cases where the burden of proof is "balanced", i.e. shared between the parties, and in cases where such burden is re-distributed through a legal presumption releasing one party of a particular proof and shifting it to the other party.

43. The situation in "quasi-penal" procedures, such as doping in sport, should, on the other hand, be looked at differently, among other reasons also due to the principle *"in dubio pro reo*", i.e. the benefit of doubt, which itself is an emanation of one of the most important legal presumptions, the presumption of innocence, deeply enshrined in the general principles of law and justice. This principle has the effect that in criminal and similar proceedings, the two parties do not bear equal burden of proof: while the accusing party must prove the alleged facts with certainty, it is sufficient for the accused to establish reasons for doubt.

44. In spite of the very important requirements of an efficient fight against doping and unfair practices in sport, these requirements cannot prevail over the basic legal and procedural guarantee which the rule of *in dubio pro reo* offers to an accused person. While, on one hand, it is appropriate to establish rules for efficient sanctioning of offences where the medical science and experience allow no reasonable doubt about the real cause of the presence of forbidden substances, it should be noted, on the other hand, that the principle *in dubio pro reo* is not contrary to the spirit of the documents of the IOC Medical Commission addressed to those who apply the Medical Code.

45. Once the principles underlying the burden of proof and the impact of the existence of a "grey zone" have been established, it is appropriate to analyse the evidence offered by the parties in the case before us in the light of the above principles.

46. It is not disputed between the parties that the analysis of the urine sample of the Appellant indicated the presence of norandrosterone (3 ng/ml) and noretiocholanone (3 ng/ml).

47. In this respect, the circumstances of this case differ from some other cases recently decided by the CAS Panels (TAS 98/212 UCI v. M. and TAS 98/214 B. v. FIJ) in more than one aspect. Not only was the concentration of nandrolone metabolites found in the urine of the athlete in this case much lower (3,0 ng/ml as opposed to 5 – 6 ng/ml in M. and 10,8 – 15 ng/ml in B.), but also the subsequent out-of-competition tests to which the Appellant submitted permit conclusions differing from those in the other cases referred to above.

48. The previous case law of the CAS has held the athletes responsible after having determined that the athlete has not been able to provide any reasonable explanation and failed to submit any evidence supporting the motion that presence of norandrosterone is due to endogenous

production. (see CAS 98/112 UCI v. M., consideration 4.5.). This, however, should not be interpreted as meaning that this evidence was an exclusive responsibility of the athlete. It merely supports the rule that – within the "grey zone" – the parties should share such responsibility and co-operate in the process of determination of the real cause (or elimination of excluded causes).

49. In the circumstances of this case, it was, however, the Appellant who offered evidence – supported by expert opinion – that the presence of metabolites could have as well been a consequence of endogenous production of his body. The "Conclusions and Comments" submitted by Dr. L. Dehennin of L.A.B (Laboratoire de la Federation Nationale des Courses Francaises de Châtenay – Malabry, France) on 30 March 1999 confirm that the Appellant displayed – during the out-of-competition testing between October 1998 and February 1999 - an abnormal urinary excretion profile of nandrolone metabolites, which occasionally exceeded 2 ng/ml. The report of Dr. Dehennin also underlined the correlation between the fat-rich diet to which the Appellant was submitted and the high levels of endogenous creation of norandrosterone and noretiocholanone.

50. During his testimony at the hearing on 15 April 1999, the Panel examined the nutritional pattern of the Appellant, whereby the Appellant explained his yearly cycle in training and diet. According to his statement, the Appellant has been practising high fat-rich diet about 5 weeks before competition for the last few years. While it is not for this Panel to judge over such nutritional practices, the conclusions of the report of Dr. Dehennin -quoted above -, support the possibility that the presence of nandrolone metabolite in the urine following the competition on 7 June 1999 was not of exogenous origin, becomes at least probable.

51. The Panel also considered the observation made by the Respondent that the laboratory tests to which the Appellant submitted were not conducted under controlled supervision. It is true that in such a testing the possibility of external application cannot be completely excluded. The only reliable method to exclude exogenous supplementation of the detected substances would be the carbon isotopic ratio measurement, which, according to the expert testimony of Dr. Saugy at the hearing on 15 April 1999, cannot – for the time being – be successfully applied to such small concentrations. The Panel noted, however, that the testing results demonstrated that the NE concentrations were always higher than those of NA, which – while being "unusual" for Dr. Dehennin – was considered by expert witness Dr. Saugy to be an indication of endogenous production; namely, the experience of the laboratories shows that in cases of external absorption, the concentration of NA is always higher than that of NE. On the basis of this testimony, the Panel considers the testing carried out at LAB Châtenay –Malabry as free of external application and the results of this testing reliable.

52. The conclusion of this Panel is that the Appellant has established at least a probability that the concentrations of nandrolone metabolites found in his urine after the Zofingen competition on 7 June 1998 were a result of endogenous production of his body. Although it is clear that the Appellant was unable to prove with certainty such endogenous production, the evidence provided can be deemed sufficient to create reasonable doubt concerning external application. In line with the legal reasoning concerning the legal impact of the "grey zone" cases,

developed earlier in this award, the evidence leading to reasonable doubt should – in absence of other evidence – be sufficient to grant the Appellant the benefit of doubt.

53. It deserves to be added that, according to the expert testimony of Dr. Saugy (and also according to the testimony of Dr. Rivier in the case CAS 98/212 M., consideration 4.4.), the likelihood that nandrolone is produced endogenously, is decreasing exponentially within the limits of the "grey zone" (i.e., between 2 and 5 ng/ml). The concentrations found in the urine of the Appellant lie closer to the lower limit of the "grey zone" and therefore increase the likelihood of endogenous creation sustained by the Appellant.

54. On the basis of the above legal and factual considerations, the Panel considers that the results of the doping tests of the Appellant following the Zofingen competition do not – due to low concentrations of nandrolone metabolites – constitute conclusive evidence of a doping offence, taking into account the recent development of science in this field. The sanctions against the Appellant should therefore be lifted.

55. While it would be – in the opinion of this Panel – highly recommendable and, indeed, in the interest of legal certainty and transparency of the anti-doping rules, that the recent developments of science in the field of doping analysis, are adequately reflected in appropriate guidelines in the foreseeable future, the absence of such guidelines should not prevent the National and International Federations to take into account the circumstances dealt with in this award, when applying their Anti-Doping Rules and/or the IOC Medical Code in similar cases involving low concentrations of nandrolone metabolites, and to proceed to additional testing in case of findings of nandrolone metabolites in concentrations between 1 and 5 ng/ml.

56. The advantage of a rule that – in cases falling into the so called "grey zone", where real cause of the presence of forbidden metabolites is uncertain – the initiative for additional testing should lie on the side of the sanctioning body, rather than be left exclusively to the initiative of the accused athlete, is to be seen also in the fact that the investigating body can – when acting on its own initiative – also define appropriate rules and procedures for such additional testing and in this way avoid any doubts as to the reliability of their results which might exist in case that it was left to the athlete to choose and initiate such additional testing.

57. The appeal being upheld, it is appropriate that the Respondent be obliged to reimburse the CAS one half of the Court Office fee of CHF 500.-- paid by the Appellant, i.e. CHF 250.--.

58. As for other cost of proceedings, the Panel considers it equitable that both parties bear their own costs. In spite of the fact that the Appellant has succeeded on the merits of the case, the Respondent should not be excessively burdened for having relied on the existing formal guidelines and procedures.

The Court of Arbitration for Sport hereby rules:

1. The appeal lodged by B. is upheld.

2. The decision of the ITU Hearings and Appeals Board of 10 December 1998 is hereby cancelled.

3. The suspension of the Appellant for a one-year period (from 1 September 1998 until 31 August 1999), pronounced by the Swiss Triathlon Federation on 29 August 1998 is lifted.

4. The disqualification of the Appellant from all competitions between 7 June 1998 and 31 August 1998, pronounced by the Swiss Triathlon Federation on 29 August 1998 is cancelled; the results and titles achieved by the Appellant during this period are confirmed.

5. The award is pronounced without costs, except for the Court Office fee of CHF 500.-- paid by the Appellant and which is kept by the CAS.

6. The Respondent shall reimburse to the Appellant the half of the Court Office fee in the amount of CHF 250.--; moreover, each party shall bear its own costs.