TAS / CAS
TRIBUNAL ARBITRAL DU SPORT
COURT OF ARBITRATION FOR SPORT
TRIBUNAL ARBITRAL DEL DEPORTE

CAS 2024/A/10647 World Anti-Doping Agency (WADA) v. UK Anti-Doping Limited (UKAD) & Elizabeth Banks

ARBITRAL AWARD

delivered by the

COURT OF ARBITRATION FOR SPORT

sitting in the following composition:

President:	Mr Ken E. Lalo, Attorney-at-Law in Gan-Yoshiyya, Israel
Arbitrators:	Mr James Drake KC, Barrister in London, United Kingdom The Hon. Dr Annabelle Bennett AC SC, Barrister in Sydney, Australia
Clerk:	Ms Stéphanie De Dycker, Clerk with the CAS, Lausanne, Switzerland

in the arbitration between

World Anti-Doping Agency (WADA), Switzerland
Represented by Mr Ross Wenzel, WADA General Counsel and Mr Nicolas Zbinden and Robert Kerslake, Attorneys-at-Law, Kellerhals Carrard, Lausanne, Switzerland

Appellant

and

United Kingdom Anti-Doping Limited, United Kingdom
Represented by Ms Nisha Dutt, internal counsel for UK Anti-Doping and Mr Jonathan Taylor KC, Attorney-at-Law, Bird & Bird LLP, London, United Kingdom

First Respondent

and

Elizabeth Banks, France

Second Respondent

I. PARTIES

1. The World Anti-Doping Agency (the "Appellant" or "WADA") is a Swiss private law foundation. Its seat is in Lausanne, Switzerland, and its headquarters are in Montreal, Canada. WADA was created in 1999 to promote, coordinate and monitor the fight against doping in sport in all its forms based on the World Anti-Doping Code (the "WADC").

2. United Kingdom Anti-Doping Limited (the "First Respondent" or "UKAD") is the national anti-doping organisation for the United Kingdom. It is responsible for the implementation and management of anti-doping policy in the United Kingdom through the UK Anti-Doping Rules (the "ADR"). Its seat is in London, United Kingdom.

3. Ms Elizabeth Banks (the "Athlete" or the "Second Respondent") is a professional cyclist from the United Kingdom, born 7 November 1990, who retired from sport as of 23 May 2024. At the time of the relevant facts, the Athlete was registered with British Cycling, the national governing body for cycling, and was thus bound by the ADR.

4. The First Respondent and the Second Respondents are jointly referred to as the "Respondents". The Appellant and the Respondents are jointly referred to as the "Parties".

II. FACTUAL AND PROCEDURAL BACKGROUND

5. On 17 April 2025, an award in this matter (the "Original Award"), which will be reported in full below (see Section III), was issued by the Panel, by which the Athlete was found to have committed an anti-doping rule violations and was sanctioned with a two year period of ineligibility, starting on the date of the Original Award, i.e. 17 April 2025.

6. On 15 May 2025, the Athlete filed an application for revision of the Original Award (the "Revision"), under Article 190a of the Federal Act on Private International Law ("PILA"), requesting that the matter be referred to the same Panel in order to revise the Original Award and backdate the start of the two-year period of ineligibility to the date of Sample Collection, namely 11 May 2023, further to the power conferred by Article 10.13.1 of the WADC and mirrored in the ADR, thus providing that such period ended on 10 May 2025. This filing followed correspondence between the Athlete and the other Parties and the CAS Court Office regarding the possibility of amending the Original Award. The Athlete further suggested that UKAD should cover all costs related to the Application for Revision.

7. On 21 May 2025, UKAD confirmed its acceptance and support of the Athlete's Application for Revision, reconfirming a position held by UKAD in prior correspondence on the matter with the CAS Court Office on 24 April 2025.

8. On 26 May 2025, WADA confirmed its acceptance of the Athlete's Application for Revision, reconfirming a position held by WADA in prior correspondence on the matter with the CAS Court Office on 24 April 2025. WADA submitted that it should not bear any of the costs related to such application.

9. On 20 June 2025, the CAS Court Office advised that UKAD paid the advance of costs relating to the Application for Revision and that the matter was transferred to the original Panel for consideration.

III. THE ORIGINAL AWARD

10. The full text of the Original Award is reported below:

I. PARTIES

1. The World Anti-Doping Agency (the "Appellant" or "WADA") is a Swiss private law foundation. Its seat is in Lausanne, Switzerland, and its headquarters are in Montreal, Canada. WADA was created in 1999 to promote, coordinate and monitor the fight against doping in sport in all its forms based on the World Anti-Doping Code (the "WADC").

2. United Kingdom Anti-Doping Limited (the "First Respondent" or "UKAD") is the national anti-doping organisation for the United Kingdom. It is responsible for the implementation and management of anti-doping policy in the United Kingdom through the UK Anti-Doping Rules (the "ADR"). Its seat is in London, United Kingdom.

3. Ms Elizabeth Banks (the "Athlete" or the "Second Respondent") is a professional cyclist from the United Kingdom, born 7 November 1990, who retired from sport as of 23 May 2024. At the time of the relevant facts, the Athlete was registered with British Cycling, the national governing body for cycling, and was thus bound by the ADR.

4. The First Respondent and the Second Respondents are jointly referred to as the "Respondents". The Appellant and the Respondents are jointly referred to as the "Parties".

II. FACTUAL BACKGROUND

5. The present appeal was brought by WADA against the 26 April 2024 decision of UKAD (the "Appealed Decision"), according to which the Athlete had committed a violation of Articles 2.1 and 2.2 of the ADR and had established that she bore No Fault or Negligence for the Anti-Doping Rule Violation ("ADRV"). As a result, no period of ineligibility and no disqualification of results were imposed on the Athlete.

6. Below is a summary of the relevant facts and allegations based on the Parties' written submissions, pleadings and evidence adduced at the hearing. Additional facts and allegations found in the Parties' written submissions, pleadings and evidence may be set out, where relevant, in connection with the discussion that follows. While the Panel has considered all the facts, allegations, legal arguments and evidence submitted by the Parties in the present proceedings, it refers in this award (the "Award") only to the submissions and evidence it

considers necessary to explain its reasoning and conclusions.

A. Factual Background

7. On 11 May 2023, the Athlete was subjected to an out-of-competition doping control at her domicile in France, whereby she provided blood sample 956291 and urine sample 7122341 to the Doping Control Officer (the "Sample Collection").

8. On the Doping Control Form, the Athlete declared the use of a number of medications, including Symbicort, which is a formoterol inhalant.

9. The analysis of the Athlete's urine sample (the "Sample") revealed the presence of chlortalidone, which is a Prohibited Substance and is listed under S.5 of the 2023 WADA Prohibited List as a diuretic and masking agent, banned in and out of competition.

10. The analysis further revealed the presence of formoterol, which is listed under S.3 as a beta-2-agonist, with the exception that inhaled formoterol can be taken at a maximum delivered dose of 54 micrograms over 24 hours (the "Threshold Exception"). The WADA Prohibited List further provides that the Threshold Exception for formoterol does not apply where formoterol is used in conjunction with an S.5 prohibited substance; chlortalidone is such a substance:

> "The detection in an Athlete's Sample at all times or In-Competition, as applicable, of any quantity of […] formoterol […] in conjunction with a diuretic or masking agent (except topical ophthalmic administration of a carbonic anhydrase inhibitor or local administration of felypressin in dental anaesthesia), will be considered as an Adverse Analytical Finding (AAF) unless the Athlete has an approved Therapeutic Use Exemption (TUE) for that substance in addition to the one granted for the diuretic or masking agent."

11. On 28 July 2023, the Athlete was notified of the adverse analytical findings with respect to chlortalidone and formoterol (the "AAFs") and was provisionally suspended.

12. Between August and October 2023, the Athlete disputed the AAFs, in particular fully contesting the AAF in respect of the formoterol and explaining to UKAD her efforts to identify the source of the chlortalidone. Her assertion was that if the source of chlortalidone could be identified as a contaminant, that would affect both AAFs as it would also bring her within the permitted use of formoterol.

13. On 11 October 2023, UKAD issued a notice of charge to the Athlete, asserting that the Athlete had committed ADRVs under Articles 2.1 and 2.2 of the ADR in relation to formoterol and chlortalidone.

14. On 24 November 2023, the Athlete responded to the notice of charge confirming that she denied the charges relating to formoterol and that, although she

accepted that chlortalidone was found in her Sample, she did not accept the consequences of such result, having never knowingly or intentionally used the substance and having always taken the utmost care to ensure no doping violations.

B. Proceedings before UKAD

15. Following the Athlete's letter dated 24 November 2023, UKAD referred the matter for a hearing before the independent National Anti-Doping Panel ("NADP").

16. The Athlete filed extensive evidence and submissions to the NADP, including scientific publications, hair analysis evidence and expert reports.

17. A hearing was scheduled to take place before the NADP; however, shortly before the scheduled hearing date, the Athlete filed additional material and evidence which the UKAD accepted as obviating the need for a hearing.

18. On 26 April 2024, the NADP rendered the following Appealed Decision:

"For the reasons given above, UKAD has issued this Decision in accordance with ADR Article 7.12.2, and records that:

i. Ms Banks has committed ADRVs for the presence and Use of chlortalidone and formoterol pursuant to ADR Articles 2.1 and 2.2;

ii. Ms Banks has demonstrated that she bore No Fault or Negligence for the ADRVs, and therefore the applicable period of Ineligibility is eliminated; and

iii. No Disqualification of results under ADR Article 10.10 is to be applied."

19. The reasoning of the Appealed Decision can be set out in material part as follows (without footnotes):

"**Identification of Source**

25. UKAD has carefully examined all of the scientific evidence, and other exceptional circumstances of the case, and concluded that Ms Banks has demonstrated, on the balance of probabilities, how chlortalidone entered her system, namely by way of contamination, most likely through contamination of a pharmaceutical product.

26. In respect of the scientific evidence, UKAD notes in particular the hair analysis conducted by Professor Kintz. This analysis demonstrates that in the period immediately preceding Sample collection, chlortalidone was detected in the relevant segment of Ms Banks' hair at 4.2pg/mg. Professor Kintz concludes in his expert report that this is consistent with a contamination scenario, i.e., a small number of contaminant doses over a short period of time.

27. Professor Kintz further concludes that the hair analysis demonstrates that there were no traces of chlortalidone detected in Ms Banks' hair in the months preceding Sample collection, or in the months after Sample collection. The hair analysis therefore effectively rules out other possible explanations as to how chlortalidone entered Ms Banks' system including, for example, the tail-end of the ingestion of chlortalidone aimed at losing weight, or the use of a pharmacologically effective dose of chlortalidone for other reasons, including as a masking agent.

28. The evidence, including the hair analysis, also effectively rules out the possibility of Ms Banks' supplements being the source of the contamination. It was Ms Banks' evidence that she continued using the same Informed Sport-certified supplements that she was using prior to Sample collection, right up to the time she was notified of the AAFs. Her clear record keeping establishes that this is the case. If one of Ms Banks' supplements had been contaminated, it is likely that the hair analysis would have detected traces of chlortalidone beyond the point of Sample collection.

29. UKAD has also taken other factors into account. UKAD notes, as per the scientific literature highlighted by Ms Banks, that the contamination of pharmaceutical products by diuretics is not uncommon. It is also notable that any Athlete choosing to use a diuretic to lose weight, or act as a masking agent, would be unlikely to choose chlortalidone over other diuretics due to its extremely long half-life. This is particularly relevant in the case of Ms Banks, who studied medicine for a number of years before becoming a professional cyclist, and who demonstrated throughout her evidence and submissions (as an Athlete not legally represented after this matter was referred to the NADP) a thorough understanding of the scientific issues relevant to this case.

30. UKAD notes the extensive efforts Ms Banks made in submitting the substances in her possession for scientific examination, and the wide-ranging attempts made in tracking down the same batches of medication she had ingested prior to notification. In total, Ms Banks submitted 12 different medications for testing at an independent laboratory, leading to a total of 28 separate substances being tested.

Fault

31. The unique circumstances of this case, together with the compelling scientific evidence submitted by Ms Banks, mean that UKAD accepts, on the balance of probabilities, that chlortalidone entered Ms Banks' system through a contaminated pharmaceutical product. Thereafter, UKAD has assessed Ms Banks' Fault in relation to her approach to her anti-doping obligations broadly.

32. UKAD acknowledges that a decision that an Athlete bore No Fault or Negligence will only be reached in the most exceptional circumstances. The WAD Code places a duty on an Athlete to use "utmost caution" to avoid ingesting any Prohibited Substances, and requires an Athlete to demonstrate that they took every conceivable effort to avoid taking a Prohibited Substance.

33. In that regard, Ms Banks has demonstrated throughout her evidence and submissions that she took her anti-doping obligations very seriously, and exercised an extremely high level of care at all times in order to avoid ingesting a Prohibited Substance. UKAD has paid particular attention to the following details in that regard:

    i. Ms Banks has provided copies of the prescriptions for all the permitted medications she was prescribed, and explained the reasons she was taking a number of over-the-counter medications. She was fully aware at all times of the precise therapeutic purpose of each individual medication she was taking to assist the management of her health issues.

    ii. Ms Banks has provided evidence that she checked all of her medications on GlobalDro before initially taking them, and then performed regular re-checks to ensure they remained compliant with the Prohibited List over time.

    iii. Ms Banks used a limited number of supplements that were all Informed Sport- certified. She provided detailed reasoning to explain why she needed to use each supplement. The Informed Sport certificate of batch compliance was provided by Ms Banks for each supplement. Ms Banks said that she continued to use Informed Sport-certified supplements after moving to France, as she did not want to risk taking a supplement where the ingredients were in a different language. She provided evidence that she would travel to the UK regularly to pick up these supplements and bring them back to France. Ms Banks also outlined that the supplements were kept in a bathroom cupboard with no other ingestible products, and that her husband also used the same supplements (even though as a non-Athlete he had the possibility of using easier to source, cheaper supplements) to ensure that there was no risk of contamination between supplements being used in the household.

    iv. The caution that Ms Banks exercised in respect of what she allowed to enter her body is exemplified by a text message she received from a friend (after notification of the AAFs) expressing shock, saying "you don't even take my gummies if they aren't tested/approved". She also highlighted, by way of further example that in June 2023, she refused to eat any items from a

box of chocolates given to her by a fan as she could not be certain of their origin.

v. Ms Banks has demonstrated that compliance with the Prohibited List was at the forefront of her mind when she suffered from medical issues. She provided evidence of an occasion in 2020, when suffering from an asthma flare-up, where she was advised by her GP to increase the number of times she used her inhaler on a daily basis. Ms Banks refused to accept this advice as she was aware that such an increase would put her close to the permitted inhaled limit in a 24-hour period, and she was acutely aware of the anti-doping issues this could cause because of a much-publicised case relating to a cyclist. Ms Banks also refused an immediate treatment of nebulised salbutamol, which was recommended by her GP, as she was aware this was prohibited at all times, and wanted to manage her condition within the anti-doping rules.

vi. Ms Banks has demonstrated that she was acutely aware of the possibility of contamination as she went about her daily activities. She confirmed that she never left the bottles on her bikes unattended, and would take them with her if, for example, she went to the toilet before a race. Ms Banks outlined an occasion in 2022 where she was prescribed specific medication to treat a medical condition, but refused to accept pills from a pharmacy that attempted to fill her prescription by weighing out pills, due to the risk of contamination on the weighing scales. Instead, she searched for (and found) a pharmacy that was able to provide blister packs of the pills in question. Ms Banks also provided a photograph she had taken (taken before notification of the AAFs) of a notice (written in French) at a Swiss restaurant which highlighted that the New Zealand lamb they were serving contained traces of "growth hormones".

vi. Ms Banks, as a member of UKAD's National Registered Testing Pool, provided evidence of interactions with UKAD that highlighted her stringent attitude towards her anti-doping obligations. In one interaction, Ms Banks emailed UKAD to inform it of a late change to her Whereabouts information, and highlighted issues she was having with the Whereabouts app recognising that change. She also provided evidence of a note she regularly pinned to her front door when there were power outages in the area where she lived. The note informed anti-doping personnel that her doorbell was not working, and they should instead knock on a window to alert her to their presence. Ms Banks also outlined that, on moving home in France, she purchased a new set of door numbers to improve the visibility of

her home, specifically to ensure that anti-doping personnel would be able to locate her without issue.

34. On the basis of the above, UKAD considers that Ms Banks has established that she bore No Fault or Negligence for the chlortalidone ADRVs in this matter.

35. In respect of the formoterol ADRVs, Ms Banks accepts that these ADRVs are proven on the basis that formoterol was found in conjunction with a diuretic (chlortalidone), notwithstanding her earlier disagreement with this position. UKAD accepts that formoterol entered Ms Banks' system as a result of medication that she was prescribed to treat her asthma. As the formoterol ADRVs relate to formoterol being found in conjunction with chlortalidone in her Sample (which, but for the presence of chlortalidone, would have been permitted), it follows that UKAD's acceptance that Ms Banks bore No Fault or Negligence in relation the chlortalidone ADRVs means that she also bore No Fault or Negligence in respect of the formoterol ADRVs.

36. Therefore, the applicable period of Ineligibility of two years in this matter is eliminated, on the basis of No Fault or Negligence on the part of Ms Banks.

Disqualification

37. ADR Article 10.10 provides as follows:

> **Disqualification of results in Competitions taking place after the commission of an Anti-Doping Rule Violation**
>
> Unless fairness requires otherwise, in addition to the Disqualification of results under Article 9.1 and Article 10.1, any other results obtained by the Athlete in Competitions taking place in the period starting on the date the Sample in question was collected or other Anti-Doping Rule Violation occurred and ending on the commencement of any Provisional Suspension or Ineligibility period, shall be Disqualified, with all of the resulting consequences, including forfeiture of any medals, titles, points and prizes.

38. While the decision that Ms Banks bore No Fault or Negligence in relation to the AAFs is not in itself sufficient to deem it unfair to disqualify the results obtained by her in the period between Sample collection and the commencement of her Provisional Suspension, UKAD considers that the particular circumstances of the AAFs in this matter do in fact make it unfair to do so.

39. In particular, UKAD notes the scientific evidence in this case, which establishes that Ms Banks ingested low levels of chlortalidone through contamination, not capable of having a pharmacological effect, over a

short period of time. The scientific evidence also indicates the substance was no longer in Ms Banks' system in the period shortly after Sample collection, as demonstrated by the specific hair analysis.

40. This effectively rules out the possibility of any competitive advantage being gained by Ms Banks in the period between Sample collection and her Provisional Suspension being imposed.

41. In all the circumstances, therefore, no Disqualification of results will be applied.

Summary

42. For the reasons given above, UKAD has issued this Decision in accordance with ADR Article 7.12.2, and records that:

i. Ms Banks has committed ADRVs for the presence and Use of chlortalidone and formoterol pursuant to ADR Articles 2.1 and 2.2;

ii. Ms Banks has demonstrated that she bore No Fault or Negligence for the ADRVs, and therefore the applicable period of Ineligibility is eliminated; and

iii. No Disqualification of results under ADR Article 10.10 is to be applied."

20. On 10 May 2024, WADA submitted a case file request and received elements of the case file on 14 May 2024.

III. PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

21. On 4 June 2024, WADA filed its appeal against the Appealed Decision before the Court of Arbitration for Sport (the "CAS") and submitted its Statement of Appeal pursuant to Article R48 of the Code of Sports-related Arbitration (2023 edition) (the "CAS Code"). In its Statement of Appeal, WADA nominated James Drake KC as arbitrator.

22. On 6 June 2024, the CAS Court Office informed the Parties that the present arbitration proceedings had been assigned to the Appeals Arbitration Division of the CAS and invited WADA to file its Appeal Brief within the prescribed time limit and the Respondents to jointly nominate an arbitrator.

23. On 15 July 2024, within the previously extended time limit, WADA filed the Appeal Brief with the CAS Court Office.

24. On 16 July 2024, the CAS Court Office invited the Respondents to file their

respective Answers within the prescribed time limit.

25. *On 17 July 2024, within the previously extended time limit, the Respondents informed the CAS Court Office that they jointly nominated the Hon. Dr Annabelle Bennett AC SC as arbitrator.*

26. *On 30 July 2024, the Athlete requested the CAS Court Office for a) disclosure of documents (namely the "full details of the recent case involving 23 Chinese swimmers who tested positive for trimetazidine") and b) the appointment of Prof. Mario Thevis as expert witnesses.*

27. *On the same day, the CAS Court Office invited WADA and UKAD to file comments on such requests. The CAS Court Office further noted, for the sake of clarity, that since evidentiary measures are ordered only by the Panel, the Athlete's requests would be considered and determined by the Panel, once constituted.*

28. *On 6 August 2024, WADA objected to the Athlete's latest requests.*

29. *On 8 August 2024, the Athlete provided her comments to WADA's letter of 6 August 2024.*

30. *On 21 August 2024, the CAS Court Office informed the Parties that the Panel appointed to decide the present procedure was constituted as follows:*

President: *Mr Ken E. Lalo, Attorney-at-Law in Gan-Yoshiyya, Israel*

Arbitrators: *Mr James Drake KC, Barrister, United Kingdom*

The Hon. Dr Annabelle Bennett AC SC, Barrister in Sydney, Australia

31. *On 23 August 2024, the Athlete filed a disclosure request in relation to "any cases that either WADA or Prof. Ayotte are aware of in which Prof. Ayotte has been found to have misrepresented evidence or misled any parties, panels or tribunal proceedings, or provided evidence which was criticised".*

32. *On the same day, the CAS Court Office informed the Parties that the Panel had carefully considered the Athlete's request for a) disclosure of documents (namely the* "full details of the recent case involving 23 Chinese swimmers who tested positive for trimetazidine") *and b) the appointment of Prof. Mario Thevis as tribunal-appointed expert witness, and had decided to reject them, the reasons for this decision being detailed in the Award. The CAS Court Office also informed the Parties that the Panel had carefully considered the request for disclosure regarding Prof. Ayotte, expert appointed by WADA, and that it would not issue an order in this regard, noting that the Athlete would have the possibility to cross-examine Prof. Ayotte at the hearing and would also be able to present her own evidence in order to rebut Prof. Ayotte's conclusions.*

33. *On the same day, the Athlete filed a new request for disclosure, which the CAS*

Court Office invited WADA to comment on.

34. *On 27 August 2024, WADA filed its comments to the CAS Court Office in relation to the Athlete's new request for disclosure.*

35. *On 3 September 2024, the CAS Court Office informed the Parties that the Panel had decided to reject the Athlete's new request for disclosure, noting that the reasons for this decision would be indicated in the Award.*

36. *On 6 September 2024, both Respondents, within the deadline previously extended, filed their respective Answers with the CAS Court Office.*

37. *On the same day, the CAS Court Office invited the Parties to indicate whether a) they preferred a hearing to be held in this matter or for the Panel to issue an award based solely on the Parties' written submissions, and b) they requested a case management conference ("CMC") with the Panel in order to discuss procedural issues, the preparation of the hearing (if any) and any issues relating to the taking of evidence.*

38. *On the same day, the Athlete informed the CAS Court Office that further to her submissions she intended to make it clear that she would call Prof. Kintz as an expert witness for the hearing.*

39. *On 12 and 13 September 2024, respectively, the Respondents informed the CAS Court Office that they preferred a hearing to be held in the present matter but that a CMC was not necessary.*

40. *On 13 September 2024, WADA informed the CAS Court Office that "it is apparent that a hearing will be required in this matter", but that a CMC was not necessary.*

41. *On 20 September 2024, the CAS Court Office informed the Parties that a hearing will be held in this matter, which will be held in person in Lausanne, Switzerland and consulted the Parties on possible hearing dates. Separately, the CAS Court Office informed the Parties that Ms Stéphanie De Dycker, Clerk with the CAS, had been appointed to assist the Panel in this matter.*

42. *On 4 October 2024, WADA requested that the experts be examined remotely via videoconference and that an additional report by Prof. Ayotte be admitted on the record.*

43. *On 8 October 2024, UKAD informed the CAS Court Office that it did not object to all experts being examined remotely but that it objected to the additional report of Prof. Ayotte being admitted to the record.*

44. *On the same day, the Athlete informed the CAS Court Office that it did not object to all experts being examined remotely but that it objected to the additional report of Prof. Ayotte being admitted to the record.*

45. *On 9 October 2024, WADA provided its comments to the Athlete's reply of 8*

October 2024.

46. *On 11 October 2024, and after due consultation with the Parties as to the possible hearing dates, the CAS Court Office informed the Parties that a hearing would be held in this matter on 18 December 2024 at the CAS Court Office in Lausanne, Switzerland, and invited the Parties to communicate the list of their hearing attendees.*

47. *On 18 October 2024, WADA filed a copy of a decision which was mentioned by UKAD in its Answer.*

48. *On 23 October 2024, the CAS Court Office informed the Parties that, unless any objection is raised, the decision submitted by WADA, which was mentioned by UKAD in its Answer, would be admitted on the case file. Separately, the CAS Court Office informed the Parties that, for the reasons indicated in the Award, the Panel had decided to admit Prof. Ayotte's additional report dated 4 October 2024 on the case file. Finally, the CAS Court Office invited the Parties to submit a jointly agreed hearing schedule.*

49. *On the same day, UKAD provided its list of hearing attendees.*

50. *On 25 October 2024, the Athlete provided her list of hearing attendees, including Mr Gabriel Banks and Mr Sam Comb, as observers.*

51. *On the same day, WADA provided its list of hearing attendees.*

52. *On 29 October 2024, the CAS Court Office invited the Parties to indicate whether they consented to the presence of the two observers on the side of the Athlete.*

53. *On 31 October 2024, UKAD provided a draft hearing schedule, which was accepted by all Parties save for minor points of disagreement between the Parties.*

54. *On 6 November 2024, the CAS Court Office informed the Parties that the Panel had decided a) to admit the attendance of the two observers on the condition that they do not make any oral submissions or address the Panel and b) on the final hearing schedule.*

55. *On 22 November 2024, the CAS Court Office issued an order of procedure (the "Order of Procedure") in the present matter and requested the Parties to return a completed and signed copy thereof.*

56. *On the same day, British Cycling requested (via UKAD) to attend the hearing as an observer.*

57. *On the same day, the CAS Court Office invited the Parties to comment on such request.*

58. *On 27 November 2024, WADA informed the CAS Court Office that it did not*

object to British Cycling's request to attend the hearing as an observer.

59. *On 28 November 2024, UKAD returned a signed copy of the Order of Procedure to the CAS Court Office.*

60. *On 29 November 2024, WADA returned a signed copy of the Order of Procedure to the CAS Court Office.*

61. *On 2 December 2024, the Athlete returned a signed copy of the Order of Procedure to the CAS Court Office and confirmed that she did not object to British Cycling's request to attend the hearing as an observer.*

62. *On 3 December 2024, the CAS Court Office informed the Parties that the Panel had decided to accept British Cycling's attendance at the hearing as an observer subject to certain conditions.*

63. *On 5 December 2024, British Cycling confirmed that Ms Leah Thomas would attend the hearing remotely as an observer and that she and British Cycling and undertook to respect the conditions imposed by the Panel and acknowledged the confidential nature of the hearing and undertook to refrain from disclosing or reproducing any observed information, statement or procedural elements.*

64. *On 16 December 2024, WADA sent authorities cited in the Appeal Brief, which it intended to refer to in the course of the hearing.*

65. *On 18 December 2024, before the start of the hearing, WADA submitted additional authorities and materials cited by the experts in these proceedings that it intended to rely upon during the course of the hearing.*

66. *On 18 December 2024, a hearing was held in the present matter at the headquarters of the CAS in Lausanne, Switzerland. In addition to the members of the Panel, Mr Giovanni Maria Fares, Counsel with the CAS, and Ms Stéphanie De Dycker, Clerk with the CAS, the following persons attended the hearing:*

For WADA:	*Mr Ross Wenzel, WADA* *Mr Cyril Troussard, WADA* *Mr Nicolas Zbinden, counsel* *Mr Robert Kerslake, counsel* *Prof. Christiane Ayotte, expert [by videoconference]*
For UKAD:	*Ms Nisha Dutt, UKAD* *Mr Ciaran Cronin, UKAD* *Mr Jonathan Taylor KC, counsel* *Prof. David Cowan, expert [by videoconference]* *Ms Leah Thomas, British Cycling, observer [by videoconference]*
For the Athlete:	*Ms Elizabeth Banks, Athlete*

Prof. Pasal Kintz, expert
Mr Gabriel Banks, observer
Mr Sam Comb, observer

67. *At the outset of the hearing, the Parties declared that they had no objections as to the constitution of the Panel and that there were no procedural matters*

68. *At the hearing, the Panel heard evidence from the following experts and witnesses: Prof. Christiane Ayotte named by WADA, Prof. Pascal Kintz named by the Athlete and Prof. David Cowan named by UKAD. The Parties and the Panel had the opportunity to examine and cross-examine the witnesses. Finally, the Athlete also made a statement.*

69. *The Parties were given full opportunity to present their case, submit their arguments and answer the questions from the Panel.*

70. *At the end of the hearing, the Parties confirmed that they were satisfied with the procedure throughout the hearing, and that their right to be heard has been fully respected.*

71. *On 20 December 2024, UKAD and the Athlete provided their comments with respect to the authorities provided by WADA on the day of the hearing.*

IV. SUBMISSIONS OF THE PARTIES AND REQUESTS FOR RELIEF

72. *The aim of this section of the Award is to provide a summary of the Parties' main arguments rather than a comprehensive list thereof. However, the Panel confirms that in deciding upon the Parties' claims it has carefully considered all of the submissions made and evidence adduced by the Parties, even if not expressly mentioned in this or other sections of the Award.*

A. WADA

73. *In its Appeal Brief, WADA requested the following relief:*

"1. The Appeal of WADA is admissible.
2. The decision dated 26 April 2024 rendered by the UKAD is set aside.
3. [The Athlete] is found to have committed anti-doping rule violations pursuant to
Articles 2.1 and 2.2 of the UK Anti-Doping Rules.
4. [The Athlete] is sanctioned with a two (2) year period of ineligibility starting on the date on which the CAS Appeals Division award enters into force. Any period of
provisional suspension or ineligibility effectively served by Elizabeth Banks before the
entry into force of the CAS Appeals Division award shall be credited against the total
period of ineligibility to be served.

5. All competitive results obtained by [The Athlete] from and including 11 May 2023 (i.e. the date of the anti-doping rule violation) until 28 July 2023 (the date on which UKAD imposed a provisional suspension) are disqualified, with all resulting
consequences (including forfeiture of medals, points and prizes).
6. The arbitration costs shall be borne by the UKAD or, in the alternative, by the
Respondents jointly and severally.
7. WADA is granted a significant contribution to its legal and other costs."

74. *WADA's submissions, in essence, may be summarized as follows:*

- *The UKAD erred in finding that the Athlete had demonstrated to the applicable standard of proof how the prohibited substance entered her system:*

  - ✓ *The legal test requires an athlete to demonstrate, on the balance of probabilities, the source of the prohibited substance. CAS panels require more than speculation of a possible source of contamination; purely circumstantial evidence suggesting a possible theory is not sufficient. What is required is cogent, objective and actual evidence of the route of administration beyond speculation or allegation of a possible occurrence of a fact. In doing so, CAS panels confirm that they ought not to give weight to evidence of a fruitless search for the source as proof that the ADRV was as a result of an alleged contamination.*

  - ✓ *In the present matter, the Athlete failed to prove the source, as no specific product is identified as the (allegedly contaminated) source. Based on this fact alone, the Athlete cannot have been found to have discharged her burden of proof that there was No (Significant) Fault or Negligence. The conclusion by UKAD that the Athlete had proven source was reached through a process of deductive reasoning, ruling out potential avenues of the prohibited substance entering the Athlete's system and concluding therefore that the likely explanation was that it must have come from a pharmaceutical product. This conclusion was, therefore, based on the absence of any evidence that a specific pharmaceutical product taken by the Athlete contained chlortalidone.*

- *In any event, if the Panel were to consider that the Athlete has proven source* - quod non - *UKAD erred in accepting the Athlete's claim for a reduction of the period of ineligibility based on No Fault or Negligence:*

  - ✓ *Hair test analysis is never accepted as the principal argument in CAS case law, in particular because it suffers from known - and accepted by all – inter-individual variations and the impact of cosmetics. The Athlete's hair test analysis produced by Prof. Kintz, according to which chlortalidone was present in the Athlete's system at a contaminant level, cannot be considered as persuasive evidence of a*

contamination theory. According to Prof. Ayotte:

- *The test suffers a number of procedural flaws: the test was conducted at the request of the Athlete from which Prof. Kintz received the samples himself, which is contrary to the WADA-accredited laboratory procedure.*
- *Substantively, it is inconclusive:*
  - *the data provided (one page of chromatograms) fall well short of the extensive data that a WADA-accredited laboratory must provide;*
  - *it is not possible to calculate the concentration of the substance detected from the data provided;*
  - *the description of the test is insufficient, and the method employed is merely based on a partial publication of the method employed describing other chlortalidone cases in which Prof. Kintz was also involved;*
  - *the chromatographic peaks show asymmetry and distortion which indicate poor chromatographic conditions.*
  - *the conclusive identification of chlortalidone is based upon two-dimensional criteria: first, the retention times must match with the reference sample, and second, the relative abundance of the two ion-transitions must agree with those of a concurrently analysed reference material – in the Athlete's hair sample, the peak corresponding to the second ion-transition is two-times bigger than it is in the positive control (152.6% instead of 74.9%). Since the difference shall not exceed 10%, identification failed. Such identification criteria are not only required by WADA but are also recognised in other fields such as toxicology. Prof. Kintz does not state any criteria or tolerance limits for the second ion-transition in his analysis.*
- *Even accepting the reported levels of chlortalidone of 4pg/mg by Prof. Kintz in the hair segment 3-4 cm of the Athlete's hair, Prof. Ayotte considers that, based on published studies, the results of the Athlete's hair analysis are comparable to a concentration of 10-12,5 mg taken eight weeks prior. Since the Athlete was last tested two months prior to the AAF, intentional administration of chlortalidone following the earlier test cannot be precluded.*

- ✓ *In his report, Prof. Cowan overlooked the scenario where a "therapeutic" dose was taken following the earlier test on 14 March 2023. Prof. Cowan was also incorrect in basing the conclusions of the further report on the assumption that a "therapeutic" dose of chlortalidone is 50 mg whereas, as he notes in his second report, chlortalidone is typically taken in daily oral doses of 12.5 – 50 mg.*

- ✓ *Prof. Ayotte confirmed that, to her knowledge, the presence of chlortalidone as a contaminant of supplements or medications has never been reported. The scientific literature relied upon in the Appealed Decision does not concern studies demonstrating the frequency of chlortalidone as a contaminant of pharmaceutical products. No weight ought to be given to the scientific literature describing diuretics as common contaminants as none of the reports concern chlortalidone.*

- *The Threshold Exception associated with formoterol as per page 9 of the WADA Prohibited List only applies when it is not present in conjunction with a diuretic. Page 12 of the Prohibited List provides that the detection of formoterol in conjunction with a diuretic will be considered an AAF.*

- *As the presence of formoterol in conjunction with chlortalidone becomes an ADRV, the question as to whether there is No Fault or Negligence in respect of the ADRV associated with the presence of formoterol is intrinsically linked to whether there is No Fault or Negligence associated with the presence of chlortalidone in the Athlete's sample. Since the Athlete did not demonstrate No Fault or Negligence associated with the presence of chlortalidone in her Sample, the presence of formoterol must be considered as an ADRV and the consequent period of ineligibility applies.*

B. UKAD

75. In its Answer, UKAD requested the following relief:

"[…]

a. WADA's appeal against the [Appealed] Decision is denied.
b. The arbitration costs shall be borne by WADA.
c. UKAD is granted a significant contribution to its legal and other costs."

76. UKAD's submissions, in essence, may be summarized as follows:

- *Under Article 10.5 of the ADR, the Athlete has a stringent requirement to offer persuasive evidence of how the prohibited substance entered her system and, to meet that requirement, she must provide actual evidence as opposed to mere speculation or a theoretical probability; however, evidence is required that is enough to satisfy the Panel on the balance of probabilities, no more no less, and CAS panels have accepted that circumstantial evidence can be enough to prove source. Hence, the actual proof of the source of the prohibited substance does not have to include identification of a specific*

product which the Athlete ingested that contained chlortalidone. Instead, it is enough to provide tangible circumstantial evidence that shows, by linking the hypothesis to definite circumstances, that the hypothesis of contamination by a pharmaceutical product is more likely to be correct than any other possible explanation. In weighing that question, the Panel should consider what reasonable evidence there is (if any) to support any other possible explanation.

- *The most likely explanation for the Athlete's positive test is that one of the 11 pharmaceutical products she was taking, or one of the three dental anaesthetic injections she received, was contaminated with chlortalidone:*

  - ✓ *The concentration of chlortalidone found in the Athlete's Sample (70ng/mL) is very low but on its own, in isolation, could be consistent with either the contamination with a trace amount of chlortalidone shortly before the Sample Collection or with the tail end of excretion of an effective dose of chlortalidone several weeks before Sample Collection.*

  - ✓ *The Athlete's hair analysis by Prof. Kintz shows the presence of chlortalidone at a concentration of 4 pg/mg in the segment of hair 3 to 4 cm from the scalp, which corresponds to the timing of the Sample Collection, but no chlortalidone at any other (anterior or posterior) segment; Prof. Kintz therefore concluded that the Athlete had been exposed to chlortalidone at a level consistent with a scenario of contamination.*

  - ✓ *Prof. Cowan confirmed that the results of Prof. Kintz's hair analysis are good evidence that the Athlete had administered chlortalidone for a limited period of time, and that the administration of a contaminant product is a plausible explanation for the chlortalidone found in the Athlete's Sample; moreover, Prof. Cowan confirmed that the non-detection of chlortalidone in the other segments of the Athlete's hair makes the hypothesis of administration of a pharmacologically effective dose of chlortalidone in the days or weeks prior to the Sample Collection unlikely.*

  - ✓ *The fact that the Athlete took the same Informed Sport-certified supplements every day in the period leading up to 11 May 2023 and continued to do so thereafter, further demonstrates that the contamination of the Athlete's supplements cannot be the source for the Athlete's positive test since, had that been the case, the hair analysis would have detected traces of chlortalidone in segments growing both before and after the segment in which chlortalidone was detected.*

  - ✓ *Prof. Ayotte's statement that she is not aware of any instance of chlortalidone being found as a contaminant of supplements or medications, is contradicted by the fact that:*

    - *In the case* UEFA v. X, *the UEFA Appeals Body found that a*

positive test for chlortalidone was most likely due to inadvertent ingestion of a contaminated product.

- *WADA's Stakeholder Notice regarding potential diuretic contamination cases ("WADA's Stakeholder Notice") acknowledges that trace quantities of six specific diuretics have been found as contaminants in oral pharmaceutical products.*
- *Dr Amy Eichner co-authored a paper entitled* "Generic Pharmaceuticals as a Source of Diuretic Contamination in Athletes Subject to Sport Drug Testing" (*the "Eichner Study") detailing nine instances of positive tests for diuretics from samples collected in the United States of America, Switzerland and Japan that were caused by the ingestion of generically produced medication that had been contaminated with diuretics during the manufacturing process in amounts ranging from ten of nanograms up to 1 mg, confirming that contamination does occur.*
- *Although chlortalidone was not the diuretic found in any of the cases cited in the Eichner Study, and was not included in WADA's Stakeholder Notice, pharmaceutical companies use the same manufacturing processes for all products. There are no special quality control requirements or protections for chlortalidone.*
- *Two other instances are known where the athlete has claimed their chlortalidone AAF was due to a contaminated pharmaceutical product.*

✓ *Prof. Ayotte's criticism regarding Prof. Kintz's hair analysis should be rejected for the following reasons:*

- *WADA's International Standards for Laboratories do not prevent hair analysis being used to establish how the prohibited substance entered the Athlete's system; also, they do not say that hair analysis shall be conducted by WADA accredited laboratories or in accordance with WADA laboratory testing standards for blood or urine in order to be reliable.*
- *In light of Article 3.2 of the WADC (as reflected at Article 8.4 of the ADR) and Article 6.1.1 of the WADC, the rules are clear that hair testing may be reliable even if it is conducted by a laboratory that is not WADA-accredited and, as a result, does not have to follow WADA requirements for the analysis and reporting of results of analysis of urine and blood samples.*
- *CAS panels have repeatedly accepted the results of hair*

testing conducted by a laboratory that is not WADA-accredited as reliable evidence that an athlete only ingested a particular substance on a single occasion.

- *CAS panels have also repeatedly accepted Prof. Kintz's expertise in the testing and interpretation of the results of hair analysis, and have relied on his evidence in determining when an athlete ingested a particular substance and in what quantities, notwithstanding that his methods are different from the requirements applicable to the testing of blood or urine by WADA-accredited laboratories.*
- *As provided in a publication co-authored by Dr. Detlef Thieme entitled "*Elimination profile of low-dose chlortalidone and its detection in hair for doping analysis – Implication for unintentional non-therapeutic exposure" *(the "Thieme Study"), a WADA-accredited laboratory also reported that the results of its own analysis of hair demonstrate that chlortalidone is incorporated into and may be successfully detected in hair following ingestion of contaminant amounts.*

✓ *Prof. Ayotte's assertion that the results of the Athlete's hair analysis are consistent with intentional ingestion of a single dose (10mg) of chlortalidone at some time shortly after 14 March 2023 (the date of the Athlete's previous sample collection), which is based on one of the cases reported in the Thieme Study, is contradicted by the following:*

- *Prof. Kintz maintains that the amount of chlortalidone found in segment 3 of the Athlete's hair (4pg/mg) is consistent with exposure to chlortalidone at contaminant levels shortly before her Sample was collected on 11 May 2023, so that the hair analysis results support the Athlete's claim of incidental exposure to chlortalidone.*
- *Prof. Cowan also rejected Prof. Ayotte's conclusions and notes that the Thieme Study stated that a therapeutic dose (i.e. effective dose) of chlortalidone is 25-100mg a day.*
- *The urine excretion results reported in the Thieme Study [4.08 ng/ml and 4.26 ng/ml] are much lower than the urine concentration in the Athlete's Sample.*
- *The concentration of chlortalidone in the Athlete's Sample is similar to peak concentrations observed in the Thieme Study occurring four days after the last of five daily doses of 0.2 mg of chlortalidone, which is consistent with the Athlete's ingestion of 0.2 mg of chlortalidone (i.e. a contaminant amount) each day for five days ending approximatively four days prior to the collection of her sample on 11 May 2023.*

- *There is no sensible basis to contend that the Athlete ingested a10 mg dose of chlortalidone to cut weight eight weeks or so before the Sample Collection: she was not competing in any weight class, and in any event she was out-of-competition in 2023 until after the Sample Collection.*

✓ *The quality and consistency of the records kept by the Athlete prior to the Sample Collection is truly exemplary and, in the hearing before the NADP, the Athlete brought extensive evidence of what medication she ingested and the precise medical reason why each medication was prescribed/taken.*

✓ *The Athlete never tested positive before or after the Sample Collection and did not have uncharacteristically poor competitive results before the violation, so had no reason to cheat; in any event, the amount of chlortalidone found in her system could not have given any competitive benefit.*

✓ *The Athlete arranged for the testing by an independent laboratory of 12 different pharmaceutical products she had been taking.*

✓ *The Athlete was notified of the ADRVs on 28 July 2023, i.e. 79 days after the Sample Collection; such delay impacted her ability to identify more specifically the pharmaceutical product she ingested that was contaminated with chlortalidone.*

✓ *Most importantly, the Athlete had no reason to ingest a single dose of 10 mg: she had no need to make weight, and such a single dose would not have been effective to mask the presence of any other drug in her urine.*

✓ *In the present matter, since the hair test confirmed that the Athlete had no chlortalidone in her system one week after the Sample Collection, fairness requires no disqualification of her subsequent results.*

C. The Athlete

77. In her Answer, the Athlete requested the following relief:

"[…]
i. WADA's appeal is dismissed.
ii. The ARDV for formoterol is dismissed.
iii. I am found to bear No fault or Negligence for the chlortalidone ADRVs.
iv. I maintain all of my results (as the test was performed out of competition).
v. WADA must cover all arbitration costs.
vi. WADA are ordered to cover all my costs, including legal and associated fees as outlined in section 28."

78. The Athlete's submissions, in essence, may be summarized as follows:

- *Formoterol ADRVs: the Threshold Exception associated with formoterol as per page 9 of the WADA Prohibited List applies any time. Page 12 provides that the laboratory shall report an AAF for formoterol at any concentration in case it is detected in conjunction with a diuretic such as chlortalidone; however, such report does not mean that there is necessarily an ADRV: the results management authority shall enquire as to the use of formoterol and the AAF shall be dismissed, and no ADRV charged, once it has been established that the AAF was caused by the use of inhaled formoterol not exceeding 54 mcg/24 hours, as was demonstrated in the present matter. Alternatively, were the provisions to be read in the manner suggested by WADA, a clear conflict would exist between page 9 of the Prohibited List and page 12 of the Prohibited List and TD2022DL, which shall be resolved in favour of the Athlete as per the* contra proferentem *principle. In any event, the Athlete has proven No Fault or Negligence in relation to formoterol: the Athlete uses formoterol to treat chronic asthma and always well within the allowed limit. The only reason why formoterol was flagged as an AAF is due to a contamination event with chlortalidone; such contamination does not change any of the facts regarding the Athlete's medical need for formoterol and the fact that she has always been extremely vigilant in using formoterol.*

- *Chlortalidone ADRVs:*

  - ✓ *The Athlete never knowingly or intentionally used or ingested chlortalidone. All the substances used by the Athlete, which were mentioned on the doping control form, were taken due to a medical need. The Athlete has always taken the utmost care with respect to anti-doping matters and contamination risks: she uses a very limited number of supplements, and only batch-tested supplements which are recommended and used by British Cycling, all of which are bought in the UK by the Athlete and brought back by herself to her home in France; her husband uses the same supplements in order to limit contamination risks; the Athlete has always been very careful as to what she ingested and also never left her bottles unattended, and always checked any new or different medication using GlobalDRO resource or refusing to buy and/or to ingest medications in circumstances where she could not exclude a contamination risk and taking measures in order to ensure she does not miss a doping test.*

  - ✓ *WADC does not warn about the risk of pharmaceutical contamination, so that an athlete could not reasonably be expected to consider pharmaceuticals intended to treat health conditions as a risk of inadvertent doping, provided the athlete checks the ingredients of the medication are permitted. However, the risk of contamination of pharmaceuticals is widespread. It goes far beyond the limits set out by the Good Manufacturing Practices ("GMP") (which allow contaminants as long as the required purity level is met). Media also reported on the depth of the issue of cross-*

contamination in big pharma, which is far in excess of that which has been reported by WADA.

- ✓ *Diuretics are known contaminants of pharmaceuticals. The level of contamination allowed under the GMP has been proved to cause inadvertent AAFs in athletes. Given the true scale of pharmaceuticals contamination (well beyond what the GMP dictate), it is not surprising that one of the most commonly used classes of drugs is commonly found as a contaminant and that athletes return positive tests for contamination levels of substances such as diuretics after having consumed a legitimate and "safe" pharmaceutical product.*

- ✓ *Chlortalidone is just as likely to be a contaminant of pharmaceuticals as any other diuretics. WADA provides no scientific reason why this should not be the case. In addition, chlortalidone has an exceptionally long half-life and consequent ability to remain in the body for a remarkably long period of time. Given its specificities, the Minimum Reporting Level ("MRL") – which allows one to distinguish between contamination events and deliberate ingestion of the banned substance – suitable for a diuretic like chlortalidone - should be significantly higher than the MRL for diuretics with a much shorter half-life. WADA, in the WADA's Stakeholder Notice, introduced MRL [20 ng/ml] for six diuretics only, all with shorter half-life than chlortalidone, and none of which being chlortalidone. Prof. Cowan who confirmed that the AAF for chlortalidone may have arisen from a contaminant medication, also stated that it is illogical to provide an MRL which not only does not take half-lives into account but also sets just one MRL despite the drugs having wildly differing potencies. The Athlete's urinary concentration of chlortalidone in the amount of 70 ng/ml is definitely within the range of that of a contamination; studies recommend setting the MRL to 200 ng/ml for all diuretics.*

- ✓ *Chlortalidone is also a known environmental contaminant, an issue that WADA does not seem to tackle although the mandate of the WADA's Contaminants Working Group includes the assessment of the risks of contaminants appearing in natural foodstuffs.*

- ✓ *Education providers have failed to make athletes aware of scientifically documented risks of inadvertent doping that have been known to WADA for at least ten years.*

- ✓ *The Athlete tested more than 20 substances for the presence of chlortalidone, based on the medications she took prior to her Sample Collection. The 79 days' delay between the Sample Collection and the notification of the ADRVs meant that the Athlete no longer retained the original batch of many of the medications. At the time of the Sample Collection, she had been taking the same batch of Montelukast every day for nearly a month. If a contaminant is present in a regularly used medicine, particularly when the contamination*

has a long half-life, then there is an increased risk that the contaminant accumulates in the body and levels gradually increase. The Athlete tried to source the Montelukast tablet from Almus pharmaceuticals but did not manage to get another box with the same packaging and brand. The Athlete considers that the Montelukast tablet was the likely source of the chlortalidone contaminant, since it is a generic medication, which was manufactured in India, and the only generic medication she was taking habitually on a daily basis in the weeks prior to Sample Collection. Therefore, she was possibly repeatedly exposed to contamination amounts of chlortalidone.

- ✓ *The hair test analysis report by Prof. Kintz confirmed that the Athlete was exposed to chlortalidone at a level consistent with a scenario of contamination and not consistent with any other scenario (i.e. use of a therapeutic dose): Chlortalidone was not detected in segments 0-3cm nor in segments 4-6cm; but it was detected in the segment 3-4cm at a concentration of 4pg/mg; Prof. Kintz established that the 3-4cm segment corresponded to the period surrounding the Sample Collection and the period shortly prior to that.*

- ✓ *By not appealing the decision of the UEFA Appeals Body in the case* X v. UEFA, *WADA implicitly acknowledges that the source can be established even when the exact product cannot be identified. CAS panels have also found that locating the specific piece of meat allegedly causing the asserted contamination would impose an impossible standard to meet for athletes.*

- ✓ *Some of the cases cited by WADA are irrelevant to the present matter and, in some instances, WADA incorrectly summarized cited CAS decisions; in particular, the Athlete notes that in contexts similar to the present matter, CAS panels may accept circumstantial evidence. Moreover, WADA accepted the X v. UEFA decision, in which the UEFA Appeals Body found that the player had established that the source of the AAF was the inadvertent ingestion of chlortalidone through a contaminated product, even though the exact product could not be identified. WADA also accepted the case regarding 23 Chinese swimmers testing positive for trimetazidine for which WADA acknowledged that the source of the trimetazidine had been establishing without finding the "ultimate" source of the contamination.*

- ✓ *Prof. Ayotte's report suggests a partial and biased assessment of the evidence on record. Her conclusion that intentional ingestion could not be ruled out is based on the Thieme Study although she failed to mention a number of important aspects of this study which are critical when weighing the information: she failed to mention the 9.5 pg/mg recorded 3 days after the 10 mg dose ingestion of chlortalidone in volunteer 1; she also failed to make any remark as to the hair sample lengths or how this may affect the results of the Thieme Study; she also did not state that a single 12.5 mg dose is not*

actually a "therapeutic dose" unless it is taken daily for a period of time of at least 1-2 weeks; Prof. Ayotte also failed to mention that the physiological effects of chlortalidone at a therapeutic dose would have been highly undesirable and potentially result in very serious effects for a professional cyclist, such as dizziness or light-headedness and blurred vision. She also failed to mention the data from the Thieme Study regarding urinary concentrations of the volunteers, which show that the Athlete's urinary concentration is in line with that of a contamination dose. Prof. Ayotte failed to report on any of the details of the 2023 study by Prof. Kintz, which constitutes scientific evidence, and was peer-reviewed. Prof. Ayotte's assertion that Prof. Kintz would be biased because he received the hair sample from the Athlete is unfounded and ridiculous. Her statement that the data are far from reaching the minimum criteria for identification by WADA-accredited laboratories is unfounded, as Prof. Kintz reported in the exactly the same manner as Prof. Thieme in the Thieme Study. Prof. Ayotte failed to mention the important fact that there was a signal for chlortalidone in the negative aliquot sample for the chlortalidone confirmation by the Paris laboratory that reported their analysis of the Athlete's original sample. Prof. Ayotte also stated that the elimination period with 12.5 mg is shorter than Prof. Cowan's estimation was with 50 mg, which is not true. Prof. Ayotte wrongly stated that Prof. Cowan had placed the date of ingestion at 27 April 2023 whereas Prof. Cowan was only hypothesizing.

- ✓ *In reply to Prof. Ayotte's report, Prof. Kintz and Prof. Cowan stated that the standards of WADA-accredited laboratories do not apply to analytical evidence that is intended to inform the parties and the panel about the circumstances of ingestion of a prohibited substance. Prof. Kintz also pointed to the fact that the criteria applicable to a liquid matrix (e.g. urine) do not necessarily apply to a solid matrix (such as hair). Prof. Kintz also objected to the Prof. Ayotte's allegation that Prof. Kintz' scientific paper is not a full article. Both Prof. Kintz and Prof. Cowan concluded that the 4pg/mg detection of chlortalidone in a single 1cm segment of the Athlete's hair was both reliable and indicated that contamination is a likely source of the chlortalidone. Prof. Cowan stated that he considers the use of a pharmacologically effective dose unlikely.*

- ✓ *Having established, beyond the applicable standard of proof, that it is more likely than not that chlortalidone entered her system through the ingestion of a contaminated otherwise permitted pharmaceutical, the Athlete made every conceivable effort to avoid taking a prohibited substance and has taken the utmost care and gone above and beyond her duty as an athlete under the WADC; therefore, she committed No Fault or Negligence and the period of ineligibility must be eliminated.*

- ✓ *Alternatively, if the Panel were to consider that No Fault or Negligence does not apply, the only appropriate sanction would be No Significant Fault or Negligence, and the "light" degree of fault, with a sanction range from 0 to 8 months. However, considering the exceptional care, attention and high regard the Athlete has shown to anti-doping matters, the only conceivable sanction under No Significant Fault or Negligence is a reprimand and no period of ineligibility.*

- ✓ *The Athlete suffered prejudice as a result of the long delay between the Sample Collection and the notification of the AAF, and such long delay prevented her from searching for the source of the AAF; the Athlete also suffered prejudice as a result of the delays by WADA in the appeals proceedings: the Athlete has not retired out of choice but because it has been impossible to continue in the sport whilst these proceedings are ongoing; the Athlete also suffers prejudice from the financial discrimination of not being able to afford all the necessary costs her defense would require. The Athlete also suffered from discrimination as a result of the fact that she is an athlete with health conditions requiring medical treatment, which caused her to be unknowingly put at high risk of an inadvertent AAF.*

- ✓ *WADA's failure to implement the necessary measures in order to mitigate against unintentional doping violations in a world where pharmaceuticals commonly contain banned substances due to contamination impacts on the Athlete's fundamental human rights to maintain the highest standards of health without fear of unjust punishment.*

V. THE HEARING

79. *At the hearing, the Panel heard evidence from the following experts:*

- *Prof. Christine Ayotte: Professor Christiane Ayotte is retired Professor of Chemistry and former director of the anti-doping laboratory INRS* - Centre Armand-Frappier Santé Biotechnologie, *in Montreal, Canada. Prof. Ayotte produces two expert opinions in the present matter. Her expert opinions and oral testimony can be summarized as follows:*

  - *Although she never tested hair for anti-doping purposes and the Montreal Laboratory is not accredited for hair testing, Prof. Ayotte submits that she is an expert in the analytical techniques used in the testing of the Athlete's hair, which renders her expert opinion relevant.*

  - *The presence of chlortalidone as a contaminant of supplements or medications has never been reported, in contrast to other diuretics of more widespread use. It is u\indisputable that active ingredients that are prohibited substances in sport can contaminate supplements, preparations made in compound pharmacies, over the counter and prescribed pharmaceuticals; to this day, however, chlortalidone was*

never found and there is no evidence that it was in the Athlete's products and medications.

- *The typical therapeutic dose of chlortalidone is not 50 mg /day (as stated by Prof Cowan in his first report) but ranges from 12.5 mg to 50 mg daily. The "low dose" experiment in the Thieme Study, which is constantly referred to in this case as a contamination scenario, was conducted with a cumulative dose of 1 milligram (mg) of chlortalidone (5 x 200 micrograms (µg)); such a dose is not representative of actual contamination with diuretics, being 500 to 1000 times higher than the few ng to 1 microgram or 2 micrograms (hydrochlorothiazide) detected in medications. Indeed, the highest dose of contamination by hydrochlorothiazide reported in medications is 2 micrograms per tablet (Hemlin Study), which is far from the five x 200 micrograms [i.e. 1000 micrograms (µg) or 1miligram (mg)] referred to in the Thieme Study. No study was carried out at such contamination levels.*
- *Prof. Kintz's hair test is not reliable:*
  - ✓ *The test suffers several procedural flaws: the test was conducted at the request of the Athlete from whom Prof. Kintz received the samples himself, which is contrary to the WADA-accredited laboratory procedure.*
  - ✓ *Substantively, it is inconclusive:*
    - *the data provided (one page of chromatograms) fall well short of the extensive data that a WADA-accredited laboratory has to provide;*
    - *it is not possible to calculate the concentration of the substance detected from the data provided;*
    - *the description of the test is insufficient and the method employed is merely based on a partial publication of the method employed describing other chlortalidone cases in which Prof. Kintz was also involved;*
    - *The chromatograms contained in the report of Prof. Kintz fail to identify chlortalidone to the standards required by WADA:*
      - *the chromatographic peaks show asymmetry and distortion which indicate poor chromatographic conditions.*
      - *the conclusive identification of chlortalidone is based upon two-dimensional criteria: first, the retention times must match with the reference sample, and second, the relative abundance of the two ion-transitions must agree with those of a concurrently analysed reference material – in the Athlete's sample, the peak corresponding to the second ion-transition is two-times bigger than it*

is in the positive control (152.6% instead of 74.9%). Since the difference should not exceed 10%, identification failed. Such identification criteria are not only required by WADA but are also recognised in other fields such as toxicology. Prof. Kintz does not state any criteria or tolerance limits for the second ion-transition in his analysis.

- *Prof. Kintz is incorrect to state that* "a chlortalidone concentration of 4.2 pg/mg can be observed after a 5-days repetitive administration of 0.2 mg per day": *first, such dosage is not consistent with a contamination scenario: the cumulative dose of 1 mg of chlortalidone [i.e. five x 0.2 mg (200 µg)] is not representative of actual contaminations with diuretics, being 500 to 1000 times higher than the few ng to 1 µg or 2 µg (hydrochlorothiazide) detected in medications - this is even acknowledged by D. Thieme in his study; Second, Prof. Kintz made no mention of the previous 10 mg dose although D. Thieme confirmed that* "the difference between the two volunteers *[Volunteer 1 (4.2 pg/g) and Volunteer 2 (0.78 pg/g)]* is due to the initial 10 mg single dose 8 weeks before hair sampling".

- *Diuretics are banned in sports because of their masking and weight loss effects, which may not require the same "effective" dose(s) and duration as a chlortalidone medical treatment.*
- *According to the Thieme Study, a low dose of 1 mg taken over five days would result in a urinary concentration of 4 ng/mL after 10 days. The same applies when the low dose of 1 mg over five days is preceded by a single dose of 10 mg five weeks after the onset of the study.*
- *Even accepting the results of Prof. Kintz's hair test, based on the Thieme Study, the results of the Athlete's hair analysis are comparable to those of the volunteer in the Thieme Study who ingested a low dose of 1 mg and a single dose of 10 mg in the five weeks prior to Sample Collection. Since the Athlete was last tested two months prior to the AAF (i.e. on 14 March 2023), intentional administration of chlortalidone following the earlier test cannot be precluded. Even taking into account the dilution effect, there is therefore no reason to exclude the conclusion that a dose of 10 mg or 12.5 mg could have been taken one to three weeks prior to the Sample Collection (i.e. between 19 April 2023 and 3 May 2023), especially considering the growth rate of 1cm per month in the general population.*

- *Prof. Pascal Kintz: Professor Pascal Kintz is a Doctor in Pharmacy and Sciences (Toxicology) as well as* Professeur conventionné *at the University of Strasburg, France, and founder of X-pertise Consulting. Prof. Kintz*

produced two expert opinions in the present matter. His expert opinions and oral testimony can be summarized as follows:

- *On 3 August 2023, Prof. Kintz tested two hair strands from the Athlete. Chlortalidone was tested by liquid chromatography coupled to tandem spectrometry. The method has been published (Kintz et al., Drug Test Anal, 2023, doi: 10.1002/dta.3634). The Athlete's hair test showed the presence of chlortalidone at a concentration of 4 pg/mg in the segment of hair 3 to 4 cm from the scalp but no chlortalidone at any other (anterior or posterior) segment.*

- *With an average growth rate of 1.3 cm/month, the timing of the Sample Collection (11 May 2023) corresponds to the segment 3 to 4 cm (from the root); with an average growth rate of 1 cm/month, the timing of the Sample Collection (11 May 2023) corresponds to the segment 2 to 3 cm (from the root).*

- *The Thieme Study established that a chlortalidone concentration of 4.2 pg/mg can be observed after a 5-days repetitive administration of 0.2 mg per day. A daily dosage of 0.2 mg for 5 consecutive days of chlortalidone corresponds to a contamination scenario. Prof. Kintz therefore concluded that the Athlete had been exposed to chlortalidone at a level consistent with a scenario of contamination.*

- *Because of the dilution effect, the concentration found in a hair segment of 4 cm will be four times weaker than the concentration found in 1 cm of hair. Because of this effect, the result of the Athlete's hair test [4 pg/mg] should in fact be compared - after consideration of the dilution effect - to the concentration found in Volunteer 2 [0.78 pg/mg] of the Thieme Study who only ingested 5 times 0.2 mg/day of chlortalidone eight weeks before a unique hair sample of 4 cm was collected.*

- *There is an alarming number of AAFs involving chlortalidone at low concentration; it is also known and widely accepted that diuretics can contaminate medications. There is no reason not to consider that chlortalidone could have contaminated medications, as do other diuretics.*

- *Prof. Ayotte is wrong in her criticism:*

    - ✓ *Prof. Kintz is independent. The fact that the hair was collected from the Athlete directly by Prof. Kintz demonstrates that the Athlete's identity was verified.*

    - ✓ *Prof. Kintz's method is published in a peer-reviewed journal and does not need to be endorsed by WADA. Prof. Kintz's laboratory is accredited ISO15189, although chlortalidone in hair is not covered by this accreditation because the number of tests realized per year is insufficient.*

    - ✓ *The procedure to test chlortalidone in hair belongs to a general*

method for diuretics: to be valid, the internal standard must produce a reproductible response, which is the case.

- ✓ *Prof. Ayotte is wrong in playing with the ion-transitions for chlortalidone, as Prof. Kintz's laboratory is not WADA-accredited and hair is not a WADA standard matrix - it is solid which differs from urine or blood.*
- ✓ *Prof. Ayotte's assertion that Prof. Kintz' publication is not a full publication is wrong and unfair.*
- ✓ *If, as Prof. Ayotte states, the identification of chlortalidone in the Athlete's hair failed, it means that there was no chlortalidone in the Athlete's hair.*

➢ *Prof. David Cowan: Professor David Cowan is a Professor at the King's College, London, United Kingdom and an expert in drug detection and anti-doping. He provided four expert opinions in the present matter. His expert opinions and oral testimony can be summarized as follows:*

- *Prof. Cowan's scientific opinion is that the AAF for chlortalidone having arisen from the administration of a contaminant product, perhaps in a contaminated medication, is a plausible explanation:*
  - ✓ *A dose of less than 0,5 mg taken a day before Sample Collection, or 1 mg taken four days before Sample Collection, is likely to give the estimated concentration of 70 ng/mL. Such doses are not pharmacologically effective. The Thieme Study established that the two volunteers exhibited peak urinary concentrations of 45 and 53 ng/mL during the multiple 50 microgram dosing experiment, which is of the same order as the 70 ng/mL estimated to be present in the Athlete's urine Sample. On that basis, the concentration of chlortalidone found in the Athlete's Sample would be consistent with her ingestion of approximatively 200 micrograms, that is 0.2 mg, of chlortalidone each day for five days [i.e. 1 mg], which is not close to an effective dose and would be consistent with a contamination amount.*
  - ✓ *Prof. Kintz' test on the Athlete's hair tends to confirm the contamination scenario: the concentration found in the Athlete's hair is similar to that cited in the Thieme Study, where a dose of 5 x 0.2 mg / day chlortalidone was administered, which is similar to the amount possibly having been administered a day before the Sample Collection, so as to produce a concentration of 70 ng/mL.*
  - ✓ *Such concentration levels – namely 0.5 mg taken a day before Sample Collection, or 1 mg taken four days before Sample Collection – indicate that the Athlete administered less than a pharmacologically effective dose. Non-pharmacologically effective doses correspond to the result of the administration of a contaminated product.*

- *At the hearing, Prof. Cowan accepted that, assuming an individual took 1 tablet containing 2 micrograms of diuretics per tablet for 10 days [which would correspond to the maximum reported amount of diuretic contamination in a tablet], i.e. ingesting 20 micrograms, it would not produce a concentration close to 70 ng/ml.*
- *The Eichner Study established that contamination of pharmaceutical products does occur even if the strict requirements of GMP are implemented and respected. Even if chlortalidone has not been found as impurity in a medication to date, it appears not to be safe to say that is unlikely to occur.*
- *Anyone wishing to misuse a diuretic in breach of the anti-doping rules would not choose chlortalidone. Although, like other diuretics, chlortalidone starts to work within hours, it also remains detectable for long periods of time in the urine, because of the typical dose taken and long half-life. The Thieme Study reported that a therapeutic dose of chlortalidone is 25-100 mg once per day, and that it has a half-life as long as 59 hours.*
- *Based on the scientific evidence, the use of a pharmacologically effective dose is unlikely:*
    - ✓ *A typical therapeutic (pharmacologically effective) dose of chlortalidone is 12.5 mg to 50 mg per day. Of a 50 mg oral dose, about 32.5 mg (65%) will be absorbed into the body and about half of this (i.e. 16 mg) will be excreted in one half-life, that is 48 hours or two days. 16 mg in an average of 3 litres of urine [1.5 litre per day over two days] is approximately 5mg/litre or 5 µg/mL or 5000 ng/mL. Such dosing either on one occasion or on multiple occasions would have given rise to a concentration in urine much in excess of 70 ng/mL.*
    - ✓ *Assuming a urine production rate of 1.5 litres per day, a single dose of 50 mg of chlortalidone would have to be taken about two weeks before the Sample Collection was collected to give the estimated approximate concentration of 70 ng/mL. However, Prof. Cowan stated* "I would expect that a dose of 50 mg either to have been detected by Professor Kintz in the 2 to 3 cm [sic – should read 4 to 5 cm] segment of hair or for the concentration of chlortalidone in the 3 to 4 segment to have been considerable greater than the 4pg/mg reported". *This scenario therefore needs to be reconsidered based on the results of the Athlete's hair test, in particular the fact that no chlortalidone was found in the segments [4 to 5] cm, which corresponds to* "growth around 21 days before the 3 to 4 cm segment proposed to be the portion of hair relevant to the time of the Sample Collection on 11 May 2023".

VI. JURISDICTION

80. Article R47 of the CAS Code provides as follows:

*"*An appeal against the decision of a federation, association or sports-related body may be filed with CAS if the statutes or regulations of the said body so provide or if the parties have concluded a specific arbitration agreement and if the Appellant has exhausted the legal remedies available to it prior to the appeal, in accordance with the statutes or regulations of that body. […]*"*

81. Article 13.5.1 of the ADR states:

"Notwithstanding any other provision of these Rules, where WADA has a right of appeal under these Rules against a decision, and no other party has appealed against that decision, WADA may appeal such decision directly to CAS without having first to exhaust any other remedy, including (without limitation) appeal to an NADP appeal tribunal."

82. Article 13.4.1 ADR provides that:

"The following decisions -- a decision that an Anti-Doping Rule Violation was (or was not) committed, a decision imposing (or not imposing) Consequences for an Anti-Doping Rule Violation (other than as provided for in Article 13.3), […] may be appealed by any of the following parties exclusively as provided in this Article 13:

(a)the Athlete or other Person who is subject of the decision being appealed;

[…]

(c)UKAD;

(d)the relevant International Federation;

[…]

(g)WADA"

83. CAS jurisdiction in this matter was not contested by any of the Parties and was accepted by all Parties by the signature of the Order of Procedure.

84. Therefore, CAS has jurisdiction to hear this appeal on the basis of CAS Code R47 and Article 13 of the ADR.

VII. ADMISSIBILITY

85. Article R49 of the CAS Code provides as follows:

*"*In the absence of a time limit set in the statutes or regulations of the federation, association or sports-related body concerned, or in a previous agreement, the time limit for appeal shall be twenty-one days from the receipt of the decision

appealed against. The Division President shall not initiate a procedure if the statement of appeal is, on its face, late and shall so notify the person who filed the document. When a procedure is initiated, a party may request the Division President or the President of the Panel, if a Panel has been already constituted, to terminate it if the statement of appeal is late. The Division President or the President of the Panel renders her/his decision after considering any submission made by the other parties. *[…]"*

86. *Article 13.7.1 of the ADR states:*

"The time to file an appeal to the NADP tribunal or to CAS (as applicable) shall be twenty-one (21) days from the date of receipt of the decision by the appealing party of the decision being appealed, save that:

(a)Within fifteen (15) days from the receipt of the decision, a potential appellant that was not a party to the proceedings that gave rise to the decision shall have the right to request from the body that issued the decision a copy of the file on which such body relied. It shall then have twenty-one (21) days from receipt of the file to file an appeal.

(b)The filing deadline for an appeal filed by WADA shall be the later of:

(i)Twenty-one (21) days after the last day on which any other party in the case could have appealed; and

(ii)Twenty-one (21) days after WADA's receipt of a copy of the file on which the body that issued the decision relied."

87. *The Panel notes that WADA has a right of appeal within 21 days from the receipt of a copy of the case file before the UKAD National Anti-Doping Panel, which – as demonstrated by WADA – occurred on 14 May 2024. The Panel therefore finds that the present appeal, which was initiated on 4 June 2024 i.e. within the 21 days' deadline provided under Article 13.7.1 (b) (ii) of the ADR, is admissible.*

VIII. APPLICABLE LAW

88. *Article R58 of the CAS Code provides as follows:*

"The Panel shall decide the dispute according to the applicable regulations and, subsidiarily, to the rules of law chosen by the parties or, in the absence of such a choice, according to the law of the country in which the federation, association or sports-related body which has issued the challenged decision is domiciled or according to the rules of law that the Panel deems appropriate. In the latter case, the Panel shall give reasons for its decision."

89. *The Panel shall primarily apply the ADR on substantive issues. The relevant provisions of the ADR are the following:*

90. Article 2.1 of the ADR provides that:

"Presence of a Prohibited Substance or its Metabolites or Markers in an Athlete's Sample, unless the Athlete establishes that the presence is consistent with a TUE granted in accordance with Article 4."

91. Article 2.2. of the ADR provides as follows:

"Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method, unless the Athlete establishes that the Use or Attempted Use is consistent with a TUE granted in accordance with Article 4."

92. Article 10.2 of the ADR provides as follows:

"10.2 Imposition of a Period of Ineligibility for the Presence, Use or Attempted Use, or Possession of a Prohibited Substance and/or a Prohibited Method.

The period of Ineligibility for an Anti-Doping Rule Violation under Article 2.1, 2.2 or 2.6 that is the Athlete's or other Person's first anti-doping offence shall be as follows, subject to potential elimination, reduction or suspension pursuant to Article 10.5, 10.6 or 10.7:

10.2.1 Save where Article 10.2.4(a) applies, the period of Ineligibility shall be four (4) years where:

(a) […]

(b) The Anti-Doping Rule Violation involves a Specified Substance or a Specified Method and UKAD can establish that the Anti-Doping Rule Violation was intentional.

10.2.2 If Article 10.2.1 does not apply, then (subject to Article 10.2.4(a)) the period of Ineligibility shall be two (2) years.

10.2.3 As used in Article 10.2, the term "intentional" is meant to identify those Athletes or other Persons who engage in conduct which they know constitutes an Anti-Doping Rule Violation or they know that there is a significant risk that the conduct might constitute or result in an Anti-Doping Rule Violation and they manifestly disregard that risk. […]"

93. Article 10.5 of the ADR provides as follows:

"10.5. Elimination of the Period of Ineligibility where there No Fault or Negligence

If an Athlete or other Person establishes in an individual case that they bear No Fault or Negligence for the Anti-Doping Rule Violation, the otherwise applicable period of Ineligibility shall be eliminated."

94. Article 10.6 of the ADR provides in its pertinent part as follows:

"10.6 **Reduction of the period of Ineligibility based on No Significant Fault or Negligence**

10.6.1 Reduction of Sanctions in particular circumstances for Anti-Doping Rule Violations under Article 2.1, 2.2 or 2.6:

All reductions under Article 10.6.1 are mutually exclusive and not cumulative.

(a) Specified Substances or Specified Methods

Where the Anti-Doping Rule Violation involves a Specified Substance (other than a Substance of Abuse) or Specified Method, and the Athlete or other Person can establish that they bear No Significant Fault or Negligence for the violation, the period of Ineligibility shall be, at a minimum, a reprimand and no period of Ineligibility, and at a maximum, two (2) years of Ineligibility, depending on the Athlete's or other Person's degree of Fault.

(b) Contaminated Products

In cases involving a Prohibited Substance that is not a Substance of Abuse, where the Athlete or other Person can establish both that they bear No Significant Fault or Negligence for the violation and that the Prohibited Substance came from a Contaminated Product, the period of Ineligibility shall be, at a minimum, a reprimand and no period of Ineligibility, and at a maximum, two (2) years Ineligibility, depending on the Athlete's or other Person's degree of Fault.

[----------]

10.6.2 Application of No Significant Fault or Negligence beyond Article 10.6.1:

In an individual case where Article 10.6.1 is not applicable, if an Athlete or other Person establishes that they bear No Significant Fault or Negligence for the Anti-Doping Rule Violation asserted against them, then (subject to further reduction or elimination as provided in Article 10.7) the otherwise applicable period of Ineligibility may be reduced based on the Athlete's or other Person's degree of Fault, but the reduced period of Ineligibility may not be less than one-half of the period of Ineligibility otherwise applicable. If the otherwise applicable period of Ineligibility is a lifetime, the reduced period may be no less than eight (8) years.

IX. PROCEDURAL ISSUES

95. The Panel shall in this section explain its reasoning for the procedural decisions taken during the written phase and at the hearing in the present proceedings.

96. First, on 30 July 2024, the Athlete requested the CAS Court Office for a) disclosure of the "full details of the recent case involving 23 Chinese swimmers who tested positive for trimetazidine" (*the "CHINADA case") and b) the appointment of Prof. Mario Thevis as an expert witness. The Athlete argued that*

the CHINADA case was relevant to her case because, in the CHINADA case, "WADA applied their rules regarding establishing the source in a manner contrary to that in which WADA argue should be applied to *[the Athlete]*" *which, in the Athlete's view, would be all the more relevant considering that the substance involved in the CHINADA case was a non-specified substance with proven capabilities as a performance enhancing agent.*

97. *On 6 August 2024, WADA objected to both requests, explaining that the CHINADA case was irrelevant to the present proceedings and moreover confidential, and that it fell upon each party, and not the Panel, to appoint the expert it wished to engage.*

98. *On 23 August 2024, the CAS Court Office informed the Parties that the Panel had decided to reject both of the Athlete's requests. Article R44.3 of the CAS Code, which is applicable as a result of Article R57 of the CAS Code, provides as follows:*

"A party may request the Panel to order the other party to produce documents in its custody or under its control. The party seeking such production shall demonstrate that such documents are likely to exist and to be relevant.

If it deems it appropriate to supplement the presentations of the parties, the Panel may at any time order the production of additional documents or the examination of witnesses, appoint and hear experts, and proceed with any other procedural step. The Panel may order the parties to contribute to any additional costs related to the hearing of witnesses and experts.

The Panel shall consult the parties with respect to the appointment and terms of reference of any expert. The expert shall be independent of the parties. Before appointing her/him, the Panel shall invite her/him to immediately disclose any circumstances likely to affect her/his independence with respect to any of the parties."

99. *The CHINADA case demonstrates important differences to the present case: the CHINADA case involved a group of Chinese swimmers who tested positive for a substance called trimetazidine as a result of food/environmental contamination resulting from the identification of the substance in different locations in the kitchen used by the swimmers; the present case, conversely, involves AAFs for chlortalidone and formoterol, namely not the same substance as in the CHINADA case, and where the Athlete and UKAD assert that the chlortalidone (which is the key to both AAFs) resulted from contaminated medication. In the Panel's view, the Athlete did not demonstrate that the CHINADA case is relevant to the present matter. Moreover, the fact that WADA allegedly took a different position in the CHINADA case than in the present proceedings has not been shown to be relevant and, in any event, may have been based on factual differences between the cases. Accordingly, the Panel decided to reject the Athlete's request to order WADA to produce the full details of the CHINADA case.*

100. Moreover, rather than itself calling an expert under Article R44.3 of the CAS Code, the Panel is of the view that it should follow the CAS practice according to which each of the Parties identifies the expert they wish to engage, with the possibility for each of the Parties to ask the other parties' experts to comment on any of the issues of the present matter. As a result, the Panel decided to reject the Athlete's request for a panel-appointed expert. The Panel further notes that, together with her Answer, the Athlete submitted various expert reports from Prof. Kintz and Prof. Cowan and that, at the hearing, she examined Prof. Kintz and Prof. Cowan and cross-examined Prof. Ayotte, an expert appointed by WADA, on various issues regarding her case.

101. Second, on 23 August 2024, the Athlete filed a disclosure request in relation to "any cases that either WADA or Prof. Ayotte are aware of in which Prof. Ayotte has been found to have misrepresented evidence or misled any parties, panels or tribunal proceedings, or provided evidence which was criticised".

102. On the same day, the CAS Court Office informed the Parties that the Panel had considered the request for disclosure regarding Prof. Ayotte, and that it would not issue an order in this regard, noting that the Athlete would be able to cross-examine Prof. Ayotte at the hearing and would also be able to present her own evidence in order to rebut Prof. Ayotte's conclusions. As per Article R44.3 of the CAS Code mentioned above, the Panel considered that it would be difficult, if not impossible, to identify the documentation (if any) to be disclosed as per the Athlete's request and that, in any event, such request for disclosure with respect to other cases was not relevant for the present case.

103. Third, on 23 August 2024, the Athlete requested WADA to disclose the Case Resolution Agreement between WADA, NADA Germany and Michel Hessmann (the "Hessman CRA"). On 27 August 2024, WADA informed the CAS Court Office that it did not agree to disclose the requested Hessmann CRA, noting that it was a confidential document and that it was not relevant to the present matter. On 3 September 2024, the CAS Court Office informed the Parties that the Panel had decided to reject the Athlete's request for disclosure of the Hessmann CRA. Similarly, as per Article R44.3 of the CAS Code, information regarding another case in which a settlement was reached between WADA, the athlete and the national anti-doping agency as a result of the athlete's prompt admission under Article 10.8.2 of the WADC, is not relevant for the present case in which the Parties are not seeking a case resolution agreement.

104. Fourth, on 4 October 2024, WADA requested that Prof. Ayotte's report in reply be admitted to the record. On 8 October 2024, UKAD and the Athlete objected to this additional report being admitted to the file. On 23 October 2024, the CAS Court Office informed the Parties that the Panel had decided to admit Prof. Ayotte's additional report to the file.

105. Under Article R56 of the CAS Code, "[*u*]nless the parties agree otherwise or the President of the Panel orders otherwise on the basis of exceptional circumstances, the parties shall not be authorized to supplement or amend their requests or their argument, to produce new exhibits, or to specify further

evidence on which they intend to rely after the submission of the appeal brief and of the answer."

106. Prof. Ayotte's additional report merely constitutes a reply to the expert reports of Prof. Kintz and Prof. Cowan. The Panel therefore finds that, as per Article R56 of the CAS Code and in the interest of procedural efficiency, such additional report, which is new, shall be produced on the file.

107. Finally, on 18 December 2024, during the hearing, the Athlete and UKAD requested that Prof. Ayotte be precluded from providing her testimony on the hair test analysis provided by Prof. Kintz as a result of her lack of expertise in the field of hair analysis. The Parties had the opportunity to examine and cross-examine Prof. Ayotte on the very specific topic of her expertise in the field of hair analysis. Such examination and cross-examination revealed that although Prof. Ayotte had never tested hair for anti-doping purposes and that the Montreal Laboratory is not accredited for hair testing, Prof. Ayotte nevertheless is an expert in the analytical techniques used in the testing of hair and that, as a result, she should be authorized to submit her expert opinion on the Athlete's hair test.

108. Based on the above conclusion, the Panel thereafter decided that it would not preclude Prof. Ayotte from testifying on the hair test analysis provided by Prof. Kintz, but that it would take all aspects of Prof. Ayotte's expertise into account in the weighing of her evidence in this matter.

X. MERITS

A. Main Issues at Stake

109. The Athlete does not dispute the fact that she tested positive for chlortalidone and formoterol. Chlortalidone is listed under S5 of the WADA 2023 Prohibited List as a diuretic and masking agent and is prohibited in sport at all times. Formoterol is listed under S3 of the Prohibited List as a beta-2-agonist and is also prohibited in sport at all times, but an exception exists for formoterol as allowed if inhaled at a maximum delivery dose of 54 micrograms under 24 hours. The Parties also agree that this exception does not apply where formoterol is found in conjunction with a diuretic.

110. Therefore, the Athlete committed ADRVs under Article 2.1 of the ADR for "[*p*]resence of a Prohibited Substance or its Metabolites or Markers in an Athlete's Sample" and under Article 2.2 of the ADR for "[*u*]se or Attempted Use by an Athlete of a Prohibited Substance or Prohibited Method".

111. These ADRVs concern specified substances. Therefore, in accordance with Article 10.2.2 of the ADR, the period of ineligibility shall be two years, unless it is proven that the ADRV was intentional. It is not contended by WADA that the ADRVs in this case were intentional.

112. The Athlete claims that she bore No Fault or Negligence because the ADRVs were a result of contamination by ingested medications and that she can rely on the provisions of Article 10.5 of the ADR to eliminate any period of ineligibly. In the alternative, the Athlete submits that, if the Panel were to form the view that No Fault or Negligence did not apply, the only appropriate sanction would be No Significant Fault or Negligence, in which case the sanction should be a reprimand and no period of ineligibility.

113. The Panel shall examine first the chlortalidone ADRV and then the formoterol ADRV and consider whether the Athlete was able to prove that the positive result for chlortalidone was a result of contamination and that she of she bore No Fault or Negligence thus allowing for an elimination of the period of ineligibility, or whether a period of ineligibility of two years in accordance with Article 10.2.2 of the ADR should apply.

B. The Chlortalidone ADRVs

(a) Legal Framework

i. Proof of Source

114. Article 10.5 of the ADR states as follows:

"If an Athlete or other Person establishes in an individual case that they bear No Fault or Negligence for the Anti-Doping Rule Violation, the otherwise applicable period of Ineligibility shall be eliminated."

115. No Fault or Negligence is defined in the ADR as:

"The Athlete or other Person establishing that they did not know or suspect, and could not reasonably have known or suspected, even with the exercise of utmost caution, that they had Used or been administered the Prohibited Substance or Prohibited Method or otherwise violated an anti-doping rule. Except in the case of a Protected Person or Recreational Athlete, for any violation of Article 2.1, the Athlete must also establish how the Prohibited Substance entered the Athlete's system." (emphasis added).

116. No Significant Fault or Negligence is defined in the ADR as:

"No Significant Fault or Negligence: The Athlete or other Person's establishing that any Fault or negligence, when viewed in the totality of the circumstances and taking into account the criteria for No Fault or Negligence, was not significant in relation to the Anti-Doping Rule Violation. Except in the case of a Protected Person or Recreational Athlete, for any violation of Article 2.1, the Athlete must also establish how the Prohibited Substance entered Athlete's system*."* (emphasis added).

117. In the Panel's view, the use of the word "must" in the definition of No Fault or Negligence in the ADR positively requires the Athlete to prove "how the

Prohibited Substance entered the Athlete's system", *namely to prove the source of the AAF. Therefore, to be entitled to rely on Article 10.5 of the ADR to state that he/she bore No Fault or Negligence, an athlete must meet the threshold requirement to prove the source of the AAF. Such requirement is specifically and expressly mandated in the rules, unlike the requirement to prove source as evidence of non-intentional use which is a requirement established by CAS case law but is not specifically stated in the ADR.*

118. *The Panel therefore firmly rejects the approach that was followed by some panels (see in particular CAS 2019/A/6313, see also UEFA Appeals Body, X v. UEFA, 18 October 2023), according to which an athlete can, based on extraordinary circumstances, prove No Fault or Negligence without proving how the prohibited substance entered the body of the athlete.*

119. *The notion that* "when an athlete cannot prove source it leaves the narrowest of corridors through which such athlete must pass to discharge the burden that lies upon him" *referred to in some CAS cases (CAS 2016/A/4534, para. 37; see also CAS 2016/A/4919, para. 66), only applies to cases involving non-specified substances and only to allow an athlete to pass from a four-year period of ineligibility to a two-year period of ineligibility, under Article 10.2 of the WADC if, in the face of extraordinary circumstances, he/she is unable to establish the source of the AAF.*

120. *Such a possibility - to rebut the presumption of intent without proving source in extraordinary circumstances - was codified in the comment to Article 10.2.1.1 of the 2021 WADC, in the following terms:*

> *"While it is theoretically possible for an Athlete or other Person to establish that the anti-doping rule violation was not intentional without showing how the Prohibited Substance entered one's system, it is highly unlikely that in a doping case under Article 2.1 an Athlete will be successful in proving that the Athlete acted unintentionally without establishing the source of the Prohibited Substance*."

121. *In the Panel's view, the definition of No (Significant) Fault or Negligence combined with the wording of the comment to Article 10.2.1.1 of the WADC regarding the rebuttal of the presumption of intent leaves no room for doubt that the above cited* "narrowest of corridors" *applies only to the rebuttal of the presumption of intent under Article 10.2 of the WADC. It does not apply to cases where, as here, intent is not in issue and is not asserted and a plea of No Fault or Negligence or No Significant Fault or Negligence is examined under 10.5 or 10.6 of the ADR (or the WADC), respectively, in regard to which the ADR (mirroring the WADC) explicitly require proof of* "how the Prohibited Substance entered the Athlete's system".

122. *Therefore, pursuant to Article 10.5 of the ADR and the definition of No Fault or Negligence under the ADR, in order to be entitled to claim the elimination of the two-years period of ineligibility, the Athlete has the burden of proving how the prohibited substances that were found in her system.*

ii. Standard of Proof

123. *Article 8.4.2 of the ADR, which mirrors Article 3.1 of the WADC, provides that "[w]*here these Rules place the burden of proof upon the Athlete or other Person to rebut a presumption or establish specified facts or circumstances, the applicable standard of proof shall be by a balance of probability, except as provided in Articles 8.4.5 and 8.4.6."

124. *The standard of proof required to establish the source of a prohibited substance is therefore on the balance of probabilities. According to CAS case law, such standard of proof requires persuasive, objective evidence adduced by an athlete showing that the source is more likely than not as a result of the alleged contamination. It is not enough to satisfy that burden by showing that one possibility is more likely than another; an athlete must show that the explanation relied upon as to how the prohibited substance found its way into the athlete's system was more likely to have happened than not. This standard of proof usually entails the following principles:*

- "The standard of proof of balance of probability requires that the occurrence of a scenario suggested by an athlete must be more likely than its non-occurrence, and not the most likely among competing scenarios*" (CAS 2017/A/5301 & 5302, para. 182; see also CAS 2014/A/3615, para. 57; CAS 2012/A/2759, para. 17);*

- "The Sole Arbitrator does not need to decide which is the most likely between two or more competing scenarios, but rather the Athlete must prove that the chain of events presented by him did happen, more likely than not". (CAS 2019/A/6541, para. 80; see also CAS 2011/A/2384 and CAS 2011/A/2386: "For the Panel to be satisfied that a means of ingestion is demonstrated on a balance of probability simply means, in percentage terms, that it is satisfied that there is a 51% chance of it having occurred. The athlete thus needs to show that one specific way of ingestion is marginally more likely than not to have occurred.");

- "Of course, the Athlete is allowed to address other scenarios put forward in an effort to support his position. However, [the anti-doping organization] does not have the burden of proving the prevailing likelihood of a different scenario and it is not obliged to put forward any other competing scenarios". *(CAS 2019/A/6541, para. 80);*

- "To permit an athlete to establish how a substance came to be present in his body by little more than a denial that he took it would undermine the objectives of the Code and Rules. Spiking and contamination – two prevalent explanations volunteered by athletes for such presence – do and can occur; but it is too easy to assert either; more must sensibly be required by way of proof, given the nature of the athlete's basic personal duty to ensure that no prohibited substances enter his body." *(CAS 2010/A/2230, para. 11.12); similarly*, "merely raising unverified hypotheses or mere speculations as to how the substance entered an athlete's body will not be adequate to meet the

threshold as set forth in Article 10.5.1 and 10.5.2 of the WADAC (and its corresponding federation's anti-doping regulations)" *(CAS 2014/A/3615, para. 56);*

- *The athlete must provide* "actual evidence as opposed to mere speculation" *(CAS 2014/A/3820, para. 80);*

- *The athlete* "has a stringent requirement to offer persuasive evidence of how such contamination occurred" and a speculative uncorroborated guess is not sufficient *(CAS 2006/A/1067, para. 14);*

- What is required is objective evidence of the route of administration beyond speculation or allegation of a possible occurrence of a fact and it is insufficient for the athlete to provide a theory of inadvertent ingestion along with a denial of wrongdoing *(CAS 2010/A/2268, para. 128-129);*

- *Mere attempts to prove source are not sufficient*: "The person charged cannot discharge that burden [of proof] merely by showing that he made reasonable efforts to establish the source, but that they were without success. […] The resolution of the issue which arises at the first stage depends upon the answer to a simple question: has the person charged established what the source is? Mere assertion as to what the source is, without supporting evidence, will be insufficient." *(CAS 2014/A/3615, para. 57);*

- *An athlete does not discharge his burden* "by putting forward a theory of inadvertent contamination and requiring that the theory be accepted, by default, because of the absence of any other explanation or evidence. […] Explanations as to the possible cause of the positive test, however plausible, will, as noted above, not be enough absent more than tangible evidence" *(CAS 2012/A/2807, para. 10.7-10.8);*

- *The actual source of the prohibited substance must be identified. As was stated in CAS 2021/A/8125*, "while the Panel accepts that such contamination did conceivably occur, there remains an obligation to identify a source of origin of the prohibited substance" *(see also: CAS 2010/A/2230; CAS 2012/A/2807; CAS 2016/A/4676).*

125. *The Panel is of the view that the above describes the correct approach to the applicable standard of proof under Article 10.5 and 10.6 of the ADR. Without proving the source there cannot be an analysis as to whether the Athlete is at fault and the Athlete cannot substantiate the lack of fault or negligence or the level thereof. This would question the entire legal system on point.*

126. *In another CAS matter involving an allegation of spiking, the sole arbitrator stated that he "has sympathy with athletes who are – as, it accepts they can be – victims of spiking without evidence to prove its occurrence; but the possible unfairness to such athletes is outweighed by unfairness to all athletes if proffered, but maybe untruthful, explanations of spiking are too readily accepted." (CAS 2010/A/2230, para. 11.12). The Panel fully agrees with the sole*

arbitrator's view in that case and considers that such reasoning equally applies in the context of allegation of contamination in the present matter.

127. *The Panel shall therefore follow this approach in the context of the present matter and consider whether the Athlete has shown, on the evidence adduced by her, that the chlortalidone entered her system by reason of ingestion by her of a contaminated medication.*

(b) Discussion

128. *The Athlete argues that the AAF for chlortalidone was as a result of a contamination from a pharmaceutical product. The Athlete argues that the contamination scenario is sufficiently established based on the combination of the following evidence:*

(i) It is accepted among the Parties as well as by the experts in this case, that contamination of pharmaceutical products by diuretics does occur even if strict requirements of GMP are implemented and respected. In particular, contamination of pharmaceutical products by diuretics other than chlortalidone has been reported and is accepted by WADA. Even if chlortalidone has not been found as an impurity in a medication to date, there is no reason to exclude the possibility of contamination of medications by chlortalidone.

(ii) Although the Athlete has been using a large number of different medications to support her health issues, she has always been very cautious as to the supplements and medications she ingests. Moreover, WADA does not dispute the fact, as UKAD accepted, that the supplements taken by the Athlete were not the source of contamination and WADA does not assert that she intentionally doped.

(iii) Upon receiving the notice of the ADRVs, the Athlete had twelve different medications checked and all of them tested negative; the only tablet that she did ingest but could not have been tested is the generically produced Montelukast tablet, which in the Athlete's view was the most likely source of her positive test.

(iv) The dosage of chlortalidone found in the Athlete's system indicates that she ingested a non-therapeutic dose, which corroborates the contamination scenario.

i. The Athlete's utmost care in anti-doping matters

129. *The Panel accepts that the Athlete has taken the utmost care with respect to anti-doping matters and contamination risks: the Panel accepts that the Athlete (i) has been using a very limited number of supplements, only batch-tested supplements and retaining the batch numbers for all supplements used; (ii) used to check any new or different medication using GlobalDRO resource and did not buy and/or to ingest medications in circumstances where she could not exclude*

a contamination risk; (iii) even ingested a lower than the therapeutic dose recommended to her by her medical doctor so as to make sure that she would not go beyond any permitted threshold; and (iv) has been very diligent and rigorous in ensuring that anti-doping officials could easily locate her by providing additional information and adding details to her whereabouts to ensure she would not miss an anti-doping test. There is therefore no doubt that the Athlete has made substantial efforts to avoid taking a prohibited substance. This, however, in the Panel's view, does not assist in demonstrating how the prohibited substance entered the Athlete's system, which - as stated - is a prerequisite in order to be entitled to verify whether the Athlete committed the ADRV with No (Significant) Fault or Negligence.

130. *Similarly, the Panel accepts that, in an effort to demonstrate the contamination scenario, the Athlete tested no less than twelve medications, which represents an important evidentiary effort and cost. Therefore, the Athlete unquestionably devoted considerable resources to find the source of the presence of chlortalidone in her Sample.*

131. *The Panel however also notes that despite these efforts, the Athlete was not able to identify the contaminated product, basing her argument on the assumption that it must have been a contaminated pharmaceutical and, since she tested all but one pharmaceutical product she had been taking, by default the source of the contamination must be the pharmaceutical product which she was not able to test.*

132. *The Athlete was thus unable to point to and confirm the product that caused the alleged contamination, but she claims that she has established the source of the prohibited substance in her Sample based on the combination of the assumed source of contamination (the pharmaceutical products taken by her) together with scientific evidence which she views as confirming that the source was contamination and not deliberate use and the fact that the combination of the two makes it a more likely scenario than any other scenario.*

ii. Diuretics' Contamination of Pharmaceutical Products

133. *The Panel accepts that, as was confirmed by the experts in this matter, including Prof. Ayotte named by WADA, contamination of pharmaceutical products by diuretics does exist. As was pointed by Prof. Cowan, the Eichner Study, in particular, established that contamination of pharmaceutical products by the diuretic hydrochlorothiazide does occur even if strict requirements of GMP are implemented and respected.*

134. *Similarly, the WADA's Stakeholder Notice on potential diuretics contamination cases, published in June 2021, acknowledged that* "trace quantities of six specific diuretics (acetazolamide, bumetanide, furosemide, hydrochlorothiazide, torasemide, and triamterene) have been found as contaminants in oral pharmaceutical products, including both products available by prescription and products available over the counter."

135. At the hearing, Prof. Ayotte equally accepted that active ingredients that are prohibited substances in sport can contaminate supplements, preparations made in compound pharmacies, over the counter and prescribed pharmaceuticals, although she clarified that contamination of pharmaceutical products by chlortalidone had, to this day, never been reported.

136. The Panel therefore accepts that, in general, pharmaceutical products may be the source of certain contaminants. However, the fact that contamination of pharmaceuticals and especially generic ones exists, does not mean that the positive finding was probably due to the use of various pharmaceuticals by the Athlete. Indeed, as was pointed by Prof. Ayotte and accepted by Prof. Cowan and the Athlete, contamination of pharmaceuticals by chlortalidone has never been reported to date. Moreover, the WADA Stakeholder Notice regarding potential diuretic contamination cases published in June 2021 and referred to above, identified six diuretics for which new reporting requirements were introduced, due to the frequency with which they can occur as contaminants in pharmaceutical products, but chlortalidone is not among those. The Panel also finds it striking that out of the 12 medications that the Athlete tested, none returned positive for chlortalidone, which tends to indicate that contamination of medications by chlortalidone is rare.

137. The Athlete nevertheless argues that considering the manufacturing process of pharmaceuticals, there is no reason to exclude the possibility that chlortalidone could contaminate pharmaceuticals as do the six other diuretics acknowledged by WADA as potential contaminants. The Athlete also points to the statement in the Thieme Study, that "because of the increasing production of chlortalidone in the pharmaceutical industry, an elevated contamination risk is deemed logical", *with which Prof. Ayotte did not disagree. The Panel does recognize that there may be a lack of experience with chlortalidone and that contamination of pharmaceutical products with chlortalidone would be possible. Still, this is not the needed conclusive evidence to meet the applicable legal test. Such a possibility does not amount to a presumption that the untested pharmaceutical, Montelukast, was contaminated with chlortalidone; it remains a possible but unsubstantiated theory.*

138. As it stands, therefore, the fact that diuretics are possible contaminants of pharmaceutical products, albeit not chlortalidone, could support other more concrete evidence that a certain pharmaceutical product was the source of contamination in the Athlete's case, but in and of itself is not strong evidence of any such contamination in the present matter.

iii. The Athlete's urinary test

139. The Athlete relied on the Thieme Study to argue that the concentration found in her Sample, i.e. 70 ng/ml, is consistent with her ingestion of approximatively 0.2 mg of chlortalidone for 5 days (i.e. 1 mg), which is not close to an effective dose and would therefore be consistent with contamination amounts.

140. In the Thieme Study two volunteers who had ingested different amounts of

chlortalidone had their hair and urine tested. Volunteer I, who ingested a single dose of 10 mg of chlortalidone followed by multiple low doses of 5 times 0.2 mg/day [i.e. 1 mg], reported a peak urinary concentration of 45 ng/mL four to five days after the start of the low-dose intake. Volunteer II, who ingested only the multiple low doses of 5 times 0.2 mg/day of chlortalidone [i.e. 1 mg], reported a peak urinary concentration of 53 ng/mL four to five days after the start of the low-dose intake. The urinary concentrations of both volunteers dropped to 4 ng/mL after 10 days.

141. *Prof. Cowan explained that the peak urinary concentrations of 45 and 53 ng/mL measured in the Thieme Study, are of the same order as the 70 ng/mL estimated to be present in the Athlete's Sample. On that basis, the concentration of chlortalidone found in the Athlete's Sample would be consistent with her ingestion of approximatively 200 micrograms, that is 0.2 mg, of chlortalidone each day for five days [i.e. 1 mg], which is not close to an effective dose and would be consistent with a contamination amount.*

142. *The Panel however also notes, as was explained by Prof. Ayotte, that the "low dose" experiment in the Thieme Study, [i.e. a cumulative dose of 1 mg (or 1000 micrograms) of chlortalidone (i.e. 5 x 0.2 mg (or 200 micrograms)] is not representative of actual contamination with diuretics. Indeed, the highest level of diuretic (hydrochlorothiazide) contamination ever reported in medication amounts to 2 micrograms per tablet, which is far from the five times 200 micrograms [i.e. 1000 micrograms (or 1 mg)] referred to in the Thieme Study. Notably, no study was made at diuretics contamination levels of up to 2 microgram per tablet. The Panel also notes that Prof. Cowan accepted that assuming an individual took 1 tablet containing 2 micrograms of diuretics per tablet for 10 days [which would correspond to the maximum reported amount of diuretics contamination in a tablet], i.e. ingesting 20 micrograms, it would not produce a concentration close to 70 ng/ml that was detected in the Athlete's Sample.*

143. *Of course, the "low dose" experiment in the Thieme Study [i.e. 5 x 0.2 mg (or 200 micrograms)] is equally far from a "therapeutic" dosage which start at 12.5 mg per day according to all experts. The Panel however notes that diuretics are banned in sports because of their masking and weight loss effects, which may not require the same "effective" dose(s) and duration as a "traditional" chlortalidone medical treatment.*

144. *Furthermore, as was already stated above (see para 123 ff.), the burden lies with the Athlete to demonstrate how the prohibited substance entered her body and WADA is not required to put forward an alternative or competing scenario. The Athlete is required to establish that her alleged scenario happened more likely than not and not that such scenario was the most likely among other hypothetical scenarios considered by any of the Parties (CAS 2017/A/5301 & 5302, para. 182; see also CAS 2014/A/3615, para. 57; CAS 2012/A/2759, para. 17).*

iv. The Athlete's hair test

145. *The Athlete also relied on the evidence of a hair test produced by Prof. Kintz, from which he concluded that the presence of chlortalidone in her system was at the contaminant level. Having examined the hair test, Prof. Cowan concluded that* "contamination is a likely source of the chlortalidone found in the Athlete's urine rather than from a pharmacologically effective dose, which [he] consider[s] to be unlikely".

146. *The Panel first recalls that Prof. Ayotte made several criticisms of Prof. Kintz's analysis of the Athlete's hair. Prof. Kintz answered those criticisms and disputed Prof. Ayotte's expertise on the relevance and reliability of hair analysis. As set out above, the Panel decided to allow Prof. Ayotte to express her opinion on the Athlete's hair analysis because of her expertise in analytical chemistry which is independent of the matrix at stake.*

147. *Having carefully reviewed the entire file and the overall evidence on record, and for the reasons expressed in the following paragraphs, the Panel is of the view that it does not need to make findings on the criticism directed to Prof. Kintz's report. Indeed, even accepting the results of Prof. Kintz's hair analysis, namely that the concentration of chlortalidone in the Athlete's hair amounts 4pg/mg in the segment 3 to 4 cm from her scalp, the evidence relating to the hair test submitted by Prof. Kintz is insufficient to meet the burden that lies on the Athlete under Article 10.5 of the ADR, even in combination with all other evidence put forward by the Athlete in this case.*

148. *The Parties' argumentation is essentially based on the comparison of the concentration levels found in the Athlete's hair with those reported in the Thieme Study. All Parties and experts accept that Volunteer I of the Thieme Study, who ingested a single dose of 10 mg of chlortalidone followed by multiple low doses of 5 times 0.2 mg/day [i.e. 1 mg], reported a concentration in hair of 4.2 pg/mg in a hair segment of 2 cm collected five weeks after the onset of the study. Volunteer II, who ingested only the multiple low doses of 5 times 0.2 mg/day of chlortalidone [i.e. 1 mg], reported a concentration in hair of 0.78 pg/mg in a hair segment of 4 cm collected eight weeks after the onset of the sub-therapeutic administration study.*

149. *The Panel agrees with Prof. Ayotte that the result of the Athlete's hair analysis [i.e. 4pg/mg] is comparable to a that of Volunteer I [i.e. 4.2 pg/mg] who ingested a single dose of 10 mg and a low dose totalling the equivalent to 1 mg in the five weeks prior to sample collection. Since the Athlete previously tested negative on 14 March 2023, two months prior to the AAF, the Panel is of the view that, based on the results of the Athlete's hair analysis by Prof. Kintz, the administration of a dose of 10 mg or 12.5 mg chlortalidone following the earlier negative test cannot be ruled out.*

150. *Moreover, the Panel already found that the amounts of chlortalidone involved in the Thieme Study are much lower than the maximum amount of diuretics contamination reported in medication (i.e. up to 2 micrograms per tablet), and*

no case study was ever reported on those actual contamination levels (see above para. 140).

151. *The Athlete also explained that when comparing concentrations found in hair samples, one needs to consider the fact that the length of the hair segment tested impacts on the dilution of the concentration. The Panel is mindful that the length of the tested hair segment can impact the levels of concentration found in hair samples, and that, in particular, the hair test on Volunteer I concerned a hair segment of 2 cm whereas the Athlete's hair segment that tested positive measured only 1 cm. However, there is no evidence that such dilution effect could have potentially excluded the scenario of an (inadvertent) administration of chlortalidone in the weeks before the Sample Collection.*

152. *The Panel certainly agrees with the Athlete that the doses ingested by Volunteer I, which resulted in similar concentration levels in hair, are "sub-therapeutic" doses. However, as already noted, diuretics are banned in sports because of their masking and weight loss effects, which may not require the same "effective" dose(s) and duration as a chlortalidone medical treatment. Furthermore, as was already stated above (see para. 123 ff.), the burden lies with the Athlete to demonstrate how the prohibited substance entered her body and WADA is not required to put forward or prove an alternative scenario.*

153. *The Panel therefore concludes that the evidence regarding the Athlete's hair test does not allow the Athlete to discharge her burden of demonstrating how the prohibited substance entered her system.*

v. Conclusion regarding the source

154. *Evidence was presented that, had an athlete wanted to use diuretics, choosing to ingest chlortalidone would probably not make sense as it is detectable in the system for a longer period than other diuretics. This is, however, not evidence that the source of the AAF was contamination. At best, it can support additional sufficient concrete evidence of contamination, which does not exist in this case.*

155. *Even if the Panel were to accept the scientifically plausible scenario of contamination based on the facts that the dosage of chlortalidone does not correspond to an effective therapeutic dosage and that no chlortalidone was detected by Prof. Kintz in the Athlete's hair in the period which corresponds to a possible timing of intake of a therapeutic dose, the burden of proof is on the Athlete, and the fact that WADA could not prove a "competing scenario", does not mean that the contamination scenario was proven.*

156. *In the absence of more concrete evidence regarding the contamination (other than assumptions), the science and the reports and testimony of Prof. Kintz and of Prof. Cowan cannot be considered persuasive, scientific evidence that the Athlete's contamination theory more likely than not happened, but only that it is a possible scenario. Such scientific evidence cannot be considered proof of origin of the specific source (or even group of sources) in this case. As was stated by the panel in CAS 2021/A/8125, "while the Panel accepts that such*

contamination did conceivably occur, there remains an obligation to identify a source of origin of the prohibited substance".

157. *It does not follow from the above, and the Panel most certainly has not concluded, that the Athlete cheated; rather, the Panel once again acknowledges that the Athlete presented as a person of integrity as an Athlete trying to avoid the taking of prohibited substances and she has devoted substantial resources to find the source of the presence of chlortalidone in her Sample. The Panel is nevertheless required to apply the rules, in particular the ADR, which were enacted to safeguard one of the most important principles in sport of ensuring a level playing field and fairness to all athletes, without which the existence of all sports may be jeopardised. The Panel therefore concludes that the Athlete was unfortunately not able to discharge her burden of proving how the prohibited substance entered her body.*

158. *As was stated by other CAS panels:* "Disciplinary bodies do not make the rules and are tasked with applying them. But in the semiotic interstices of the texts one can find significant space for result-oriented ratiocination, and the one-size-fits-all characteristics of the rule on reduction of ineligibility may tempt arbitrators to make allowances for specific circumstances – such as the great difference from sport to sport of the likelihood of being able to compete at an elite international level of competition, and thus the different impact of the same period of ineligibility on athletes whose international competitiveness may be of greatly contrasting duration given the physical demands of their sport. But the time and place for making such allowances is when such rules are drafted (and amended), not in making individual decisions*" (CAS 2021/A/8125, para. 186 and cited reference).*

159. *Considering the entire evidence on record in this matter, the Panel concludes that the Athlete has not discharged her burden of proving how the chlortalidone prohibited substance entered her body, with the resulting consequences that the normally applicable period of ineligibility of two years could not be eliminated or reduced.*

C. The Formoterol ADRVs

160. *The Athlete was charged with ADRVs for the presence and use of formoterol as her Sample tested positive for formoterol together with chlortalidone.*

161. *The Threshold exception associated with formoterol indeed only applies when formoterol is not present in conjunction with a diuretic like chlortalidone. Thus, the presence of formoterol becomes a violation once the substance is detected in conjunction with chlortalidone.*

162. *WADA argues that since the Athlete failed to demonstrate No Fault or Negligence with respect to chlortalidone found in her Sample as a result of her failure to discharge the burden of proving the source of the AAF, so it follows that the presence of formoterol in the Athlete's Sample must be considered an ADRV. The Athlete on the other hand argues that there is no ADRV once it has*

been established that the AAF was caused by the use of inhaled formoterol not exceeding 54 mcg/24 hours, as was argued in the present matter and that, alternatively, were the provisions to be read in the manner suggested by WADA, a clear conflict would exist between page 9 of the Prohibited List and page 12 of the Prohibited List and TD2022DL, which shall be resolved in favour of the Athlete as per the contra proferentem *principle*.

163. The Athlete further argues that in any event, the Athlete has proven No Fault or Negligence in relation to formoterol as she has used formoterol to treat chronic asthma and always well within the allowed limit. Formoterol was flagged as an AAF only due to the finding of chlortalidone in the Sample, but this does not change any of the facts regarding the Athlete's medical need for formoterol and the fact that she has been extremely vigilant in using formoterol.

164. The Panel does not make a concrete finding in connection with formoterol as it will not change the outcome of this case or the sanctions to be imposed and thus will proceed on the basis of an ADRV for chlortalidone only without making a concrete finding as to the finding of formoterol.

D. Conclusion

165. The Athlete has committed ADRVs under Article 2.1 and 2.2 of the ADR for the presence and use of chlortalidone.

166. Since the Athlete did not discharge her burden of proving how chlortalidone entered her body, Articles 10.5 and 10.6 of the ADR do not apply, and it necessarily follows that, pursuant to Article 10.2.2 of the ADR, she shall be sanctioned with two-years of ineligibility. In doing so, the Panel shall take into account the provisional suspension effectively served by the Athlete before the entry into force of the present Award, namely from 28 July 2023 until the date of the Appealed Decision, i.e. 26 April 2024.

167. Moreover, pursuant to Article 10.10 of the ADR, "Unless fairness requires otherwise, in addition to the Disqualification of results under Article 9.1 and Article 10.1, any other results obtained by the Athlete in Competitions taking place in the period starting on the date the Sample in question was collected or other Anti-Doping Rule Violation occurred and ending on the commencement of any Provisional Suspension or Ineligibility period, shall be Disqualified, with all of the resulting consequences, including forfeiture of any medals, titles, points and prizes". *Pursuant to Article 10.10 of the ADR, the Panel finds that any results obtained by the Athlete in competitions taking place in the period starting on the date of the Sample Collection, i.e. 11 May 2023, and ending on the start of her provisional suspension, i.e. 28 July 2023, shall be disqualified, with all of the resulting consequences, including forfeiture of any medals, titles, points and prizes.*

XI. *COSTS*

(…).

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. *The appeal filed by World Anti-Doping Agency on 4 June 2024 against the decision rendered by the United Kingdom Anti-Doping Limited on 26 April 2024 regarding the case of Elizabeth Banks is upheld.*

2. *The decision rendered by the United Kingdom Anti-Doping Limited on 26 April 2024 in the matter Elizabeth Banks is annulled.*

3. *Elizabeth Banks is found to have committed anti-doping rule violations pursuant to Articles 2.1 and 2.2 of the UK Anti-Doping Rules.*

4. *Elizabeth Banks is sanctioned with a two (2) year period of ineligibility starting on the date of the present Award. Any period of provisional suspension or ineligibility effectively served by Elizabeth Banks before the present Award shall be credited against the total period of ineligibility to be served.*

5. *All competitive results obtained by Elizabeth Banks from and including 11 May 2023 until 28 July 2023 are disqualified, with all the resulting consequences, including forfeiture of medals, points and prizes.*

6. *(...).*

7. *(...).*

8. *All other motions or prayers for relief are dismissed.*

IV. THE PARTIES' SUBMISSIONS

11. This part of the Award is to provide a summary of the Parties' positions with respect to the Revision.

A. The Athlete

12. The Athlete submits that the Panel should revise the Original Award, backdating the commencement of the sanction to 11 May 2023, thus concluding on 10 May 2025, in accordance with Article 10.13 of the ADR, for the following reasons:

- ✓ New relevant facts and circumstances not previously considered by the Panel.

- ✓ At the CAS hearing, the discussion was focused solely on whether a finding of No Fault could be determined and the possibility of backdating the sanction under Article 10.13 of the ADR was not discussed.

- ✓ The Athlete was not represented before CAS and her failure to expressly make these arguments during the proceedings and prior to the issuance of

the Original Award should be understood in that context and in the context of the complex issue that formed the central argument in the proceeding.

- ✓ Article 10.13.1 of the WADC, mirrored by the ADR, concerning "c*ommencement of the period of ineligibility"* permits backdating "*where there have been substantial delays in the hearing process or other aspects of Doping Control, and the Athlete or other Person can establish that such delays are not attributable to the Athlete….*"

- ✓ Substantial delays occurred in these proceedings that were not attributable to the Athlete, including:

    - o A 79-day reporting delay;

    - o Delays leading to the first instance decision;

    - o A 42-day delay between the first instance decision and receiving WADA's appeal notice;

    - o 315 days between notice of appeal and issuing of the Original Award.

- ✓ The Athlete has fully complied with the requirements of the provisional suspension provisions throughout the appeal process, effectively serving a *de facto* suspension of 356 days between UKAD's decision and the Original Award.

- ✓ Even after the Appealed Decision was issued, allowing the Athlete to return to competitions, the Athlete refrained from engaging in any sporting activities while the appeal process was ongoing.

- ✓ The Panel found the Athlete to be a person of integrity who took the utmost care with respect to anti-doping matters and contamination risks.

- ✓ If the Original Award is not revised, the Athlete would serve a sanction of 3 years, 2 months and 8 days from 11 May 2023 to 19 July 2026.

- ✓ The Athlete has formally retired and has no intention to return to competition. However, the Athlete has an opportunity to work for an international governing body, "*which is both important to me and an opportunity that I need for financial reasons. If the sanction is not backdated, I will not be able to take this opportunity, nor seek to earn a living in any other avenue within sport*."

- ✓ For the sake of fairness, the Panel should revise the Original Award and backdate that start of the period of ineligibility to Sample Collection.

B. WADA

13. WADA supports the Athlete's request for the backdating of the period of ineligibility set out in the Original Award, *"*[g]*iven the specific and exceptional circumstances of*

the case, and taking into account the matters set out in UKAD's letter of [24 April 2025]" in support of the Application for Revision.

C. UKAD

14. UKAD also supports the Athlete's request for the backdating of the period of ineligibility set out in the Original Award, for the following reasons:

- ✓ The issue of the start date of the period of ineligibility was not a matter on which the Athlete made submissions before CAS and, therefore, nor did UKAD or WADA.
- ✓ The Athlete was unrepresented during the CAS proceedings, and it would be just and fair for the CAS to allow the Athlete to raise such a point at a late stage.
- ✓ There have been substantial delays in the hearing process that are not attributable to the Athlete, both at first instance, including as a result of the relocation of the Laboratory site, as well as in the appeal proceedings brought by WADA before CAS.
- ✓ The Athlete was not the cause of any of those delays.
- ✓ Even after the No Fault finding at first instance, the Athlete continued to respect the terms of the provisional suspension throughout the CAS appeal proceedings, and she has not competed or otherwise participated in sport in any form since 28 July 2023.
- ✓ The backdating of the start date of the two-year period of ineligibility "*is fully warranted, all the more so given the conclusions of the panel that Ms Banks is "a person of integrity" and "has taken the utmost care with respect to anti-doping matters and contamination risks". …. it is just and proper, and would speak well to the integrity and fairness of the system, if the award was amended as requested by Ms Banks before its publication*."

V. CONDITIONS FOR REVISION

15. Since at least one of the Parties in these arbitration proceedings does not have its domicile in Switzerland, and CAS is an arbitral tribunal seated in Switzerland, the provisions of Chapter 12 of the PILA shall apply.

16. In accordance with Article 190a(1) of the PILA, "*a party may request a review of an award if* [inter alia], "*it has subsequently become aware of significant facts or uncovered decisive evidence which it could not have produced in the earlier proceedings despite exercising due diligence; the foregoing does not apply to facts or evidence that came into existence after the award was issued*".

17. The authority to which any request for revision shall be submitted in the Swiss Federal Tribunal pursuant to Article 191 of the PILA.

18. In CAS 2008/A/1557, a CAS panel recognized the possibility of deferring a request for revision to an arbitral tribunal by way of an ad hoc arbitration agreement. The Panel notes that, at the time this award was rendered, the regulatory framework was different from that which applies today, as the PILA did not foresee any possibility of revising arbitral awards.

19. However, because all Parties agreed to refer the application for revision to the CAS and to the assessment of this Panel, the Parties have thereby accepted the jurisdiction of the CAS and of this Panel to entertain the Athlete's application. The Panel, therefore, is satisfied that it has jurisdiction to rule on the Athlete's Application for Revision.

20. As to the conditions for revision (i.e. the existence of "new facts"), since all Parties agree that, in the special circumstances of this case, the period of ineligibility should commence on the date of the Sample Collection, the Panel regards this as a new fact, matter or circumstance justifying a modification of the Original Award under Article 190a(1) of the PILA, and therefore accepts the Athlete's application for revision. Consequently, the Panel is of the view that the period of ineligibility imposed by the Original Award should commence on the date of Sample Collection, namely 11 May 2023, and that, accordingly, the period of ineligibility imposed on the Athlete ended on 10 May 2025.

21. All other parts of the Original Award, as reported above, shall remain unchanged, and shall be integrated in this Arbitral Award and reflected in the operative part.

VI. COSTS

(…)

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The Application for Revision filed by Ms Elizabeth Banks on 15 May 2025 is upheld.

2. The appeal filed by World Anti-Doping Agency on 4 June 2024 against the decision rendered by the United Kingdom Anti-Doping Limited on 26 April 2024 regarding the case of Elizabeth Banks is upheld.

3. The decision rendered by the United Kingdom Anti-Doping Limited on 26 April 2024 in the matter Elizabeth Banks is annulled.

4. Elizabeth Banks is found to have committed anti-doping rule violations pursuant to Articles 2.1 and 2.2 of the UK Anti-Doping Rules.

5. Elizabeth Banks is sanctioned with a two (2) year period of ineligibility starting on the date of Sample Collection, namely, 11 May 2023, and ending on 10 May 2025.

6. All competitive results obtained by Elizabeth Banks from and including 11 May 2023 until 28 July 2023 are disqualified, with all the resulting consequences, including forfeiture of medals, points and prizes.

7. (…).

8. (…).

9. All other motions or prayers for relief are dismissed.

Seat of arbitration: Lausanne, Switzerland
Date: 22 July 2025

THE COURT OF ARBITRATION FOR SPORT

Ken Lalo
President of the Panel

James Drake KC
Arbitrator

Annabelle Bennett AC SC
Arbitrator

Stéphanie De Dycker
Clerk