ROLE OF AN ABP EXPERT AND FORENSIC EVIDENCE

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ABP Experts role

- Watchdogs of ABP cases, who prevent:
  - clean athletes from being accused by statistics
  - unloyal athletes from being cleared by statistics
  - wasting resources on weak cases

- Decision-makers
  - start APFs (ADVR), suggest targeting, advice on reducing testing
  - warrant absence of procedural irregularities in sample management and verify reliability of all sources of information
  - assess athlete's explanations
  - scientific advisors in legal proceedings

- No decision on guilty/not guilty: they provide scientific grounds for decisions taken by ADO-IF disciplinary panels, and CAS
Qualification of ABP Experts

- WADA ABP Guidelines: exercise physiology, hematology, internal and sports medicine, clinical laboratory → doping hematology

- ABP scientific background
  - biological variation in reference populations of athletes
  - effects of blood doping and doping protocols used in particular sports
  - effects of confounding factors (altitude, exercise…)
  - prevalence and diagnosis of medical conditions with an effect on biomarkers
  - Bayesian logic

- Forensic reasoning and presentation of evidence → translate data and science into evidence
The expert evaluation: a multi-step process

1. Initial Review
2. Joint Panel Report
3. Expert Panel Response
4. Expert Panel Opinion

ATPF
APF
Hearing

1. Initial Review
2. Joint Panel Report
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The expert evaluation: a multi-step process

Second opinion
(3 individual Experts)

Unanimous LD

Multiple runs, new samples

Disagreement

Legal office

Antidoping Rule Violation Procedure

Hearing

Loss of unanimity

Improve targeting, ESA, steroids, new drugs, investigation...
Independence and impartiality

- A recurring issue in ABP blood doping proceedings
- Possible interferences:
  - financial relationship with APMUs/ADOs
  - pre-existing links to previous stages of the dispute
  - antidoping laboratory-associated APMU
  - intervening on behalf of ADOs (prosecutors)
- Expert independence is ensured by:
  - profile anonymity, multiple step procedure
  - scientific basis, recognized high moral standards
  - unanimity required: cases in which Expert opinion was changed
  - formal document about conflict of interest (?)
- CAS awards: expert independence unaffected (not an issue for CAS panels)
Trigger → Initial expert review (1\textsuperscript{st} step)

3. The initial Expert review

For the Steroidal Module, if a result rendered by a Laboratory represents an ATPF, the Sample will undergo Confirmation Procedures including IRMS analysis. If negative, then the APMU/ADO should do further testing and/or seek an Expert review. If the Haematological Module renders an ATPF, then the results/profile must be reviewed by an Expert chosen by the APMU or manager of the ADO. This should occur in a timely manner.

The Expert shall review the Passport anonymously (without reference to the specific Athlete by name) and conduct his/her activities in strict confidence. The Expert shall evaluate the Passport and respond back to the APMU, which will trigger further APMU action:

<table>
<thead>
<tr>
<th>Expert Evaluation</th>
<th>APMU Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal.</td>
<td>Continue normal Testing pattern.</td>
</tr>
<tr>
<td>Passport suspicious: Further data is required.</td>
<td>Alert ADO to do Target Testing and provide recommendations.</td>
</tr>
<tr>
<td>Considering the Information within the Athlete's Passport, it is highly unlikely that the longitudinal profile is the result of a normal physiological or pathological condition, and likely may be the result of the Use of a Prohibited Substance or Prohibited Method.</td>
<td>Send to two other Experts, as per section 4 of this Appendix.</td>
</tr>
<tr>
<td>Considering the information within the Passport, it is highly likely that the Athlete has a pathological condition.</td>
<td>Inform the Athlete via the ADO (or send to other Experts).</td>
</tr>
</tbody>
</table>

- ADAMS notification
- Anonymous
- Lonely
- No or little corroborating information
- (Confidential)

3.4 Results Management Requirements and Procedures for the Athlete Biological Passport (ISTI Annex L)
Initial assessment: systematic approach

- First evaluation on….. (or previous evaluations)
- Male, 37y
- T&F, long distance
- 8/9 samples, from… to…,
  2 INC, 6 OOC
- ABP status: atypical HB+OFFs
- Outliers: s. 4(HB+), s. 7 (OFF+), s. 8 (ret-)
- Suspicious samples? Date!
- ABPS
- MCV, MCHC, IRF
- CAT, BSS
- Time? Trends?
- Competition?
Initial assessment: systematic approach

- Concentrate on suspicious samples, their distribution: HB, OFFs, RET, IRF
- Identify possible sequence of stable and hypothetically basal results (final part?)
- Time/trend of changes, possible relationship with competition
- DCFs: discipline, altitude, hypoxia, collection time
- Laboratory: XE, XT, XN? (SG)
- Be descriptive
- Avoid speculations, rigid causal interpretation and casual comments in this phase
- Provide targeting advice
The Joint Expert Panel Report (2\textsuperscript{nd} step)

- **Conference call (2 or 3 LD + APMU):**
  - additional information
  - discussion
    - LD agreement $\rightarrow$ LDPs or CA
    - no consensus: further tests, targeting plan
    - advice from an appropriate outside Expert

- **Written Joint Expert Panel Report**
  - unanimous opinion:
    - doping is highly likely
    - doping is not highly likely
    - impossible to reach
Avoid the prosecutor’s fallacy

- The low evidence of an element...
  - normality
  - confounding elements
  - pathology
- ...does not automatically increases the likelihood of another:
  - i.e., doping
- Correct reasoning: assuming a known form of doping, how likely is this passport?
Questions for the experts

- How likely is this Athlete’s profile assuming normal physiological variation?
- How likely is this Athlete’s profile assuming a pathological condition?
- How likely is the Athlete’s profile assuming doping?
  - Which is the likely doping pattern/scenario?
Expert assessment of Athlete’s explanations

- Examine reports by Athlete’s experts, private test results, clinical records, training and altitude data, ABP criticisms, alleged sample invalidation, etc.
- Assess everything on the basis of clinical knowledge, scientific literature, credibility of documents...
- Patiently reply in detail to explanations with clear and robust arguments and either:
  - dismiss and confirm the APF opinion, or
  - explain why you consider a justification credible, or
  - admit that experts disagree
- Withstand multiple rounds of explications and new defence expert reports
...the Athlete was unable to demonstrate that possible irregularities could reasonably have caused the anomaly of his ABP.
Preparation and participation in legal proceedings (4\textsuperscript{th} step)

- Support to the ADO legal office for hearing preparation
- Answer lawyers’ specific questions and contribute to strategy planning
- Collaboration with external experts (gastroenterologist, endocrinologist, cardiologist, infectivologist…)
- A variety of formats for expert witnesses:
  - written opinion
  - skype/telephone witness
  - separate hearing (like a fact witness, cross-examined by parties)
  - conference hearing (debate on scientific issues)
Panels and hearings

- National governing bodies, IFs, arbitral panels (CAS)
- Panels assess the facts of the case
- Equal access to expertise → contradictory expert reports, conflict of expert evidence
- Panels have a duty to weight differing expert opinions and assess the plausibility of their conclusions
- Standard of «comfortable satisfaction»
- Necessity of a specific preparation and training on ABP and Bayesian reasoning
- Some arbitrators are now ABP «legal» experts
"In assessing expert evidence, the hearing body should particularly consider:

- The expert witnesses’ respective standing, experience and publications;
- Whether an expert’s opinion is soundly based on the facts;
- Whether the conclusions derived from those facts are sound, correct and logic; and
- The consistency of the expert’s opinion with published research"

"(...) quality, character, and ability of experts is a central issue in any legal proceeding"
Role of the Experts at Hearings

- Explain general aspects of the ABP passport
- Describe features of the specific ABP passport
  - quantitative (ATPF, breaches), but within ABP logic:
    - the abnormality is in a sequence of samples, not in a single sample
  - qualitative - present evidence regarding:
    - the chance of observing the profile in different scenarios
    - the likely doping pattern unanimously identified
- Focus on possible explanations, including Athlete’s justifications, and not on guilt or innocence
- Remain within our own area of expertise
- Provide clear answers to defense lawyers and experts and to Panel’s questions
The Expert BEs

- **BE professional**: never venture outside your area of expertise; never conclude as to guilt or innocence
- **BE balanced**: all possible explanations for the profile should be carefully evaluated
- **BE logic**: highlight the direction of the assessment of evidence
- **BE robust**: base your opinion on scientific grounds
- **BE transparent**: the expert should be able to reproduce at any time how he came to his conclusion
- **BE confident**: believe in any statement you are saying
- **BE patient** and ready to calmly answer any question
- **Be independent**: change of opinion in any phase is not a shame
- **BE clear**: present principle, facts and scientific evidence with clear sentences