

# **U.S. Anti-Doping Agency**

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**ABC Conference – July 26, 2022**



**UFC Anti-Doping Program**



# Overview

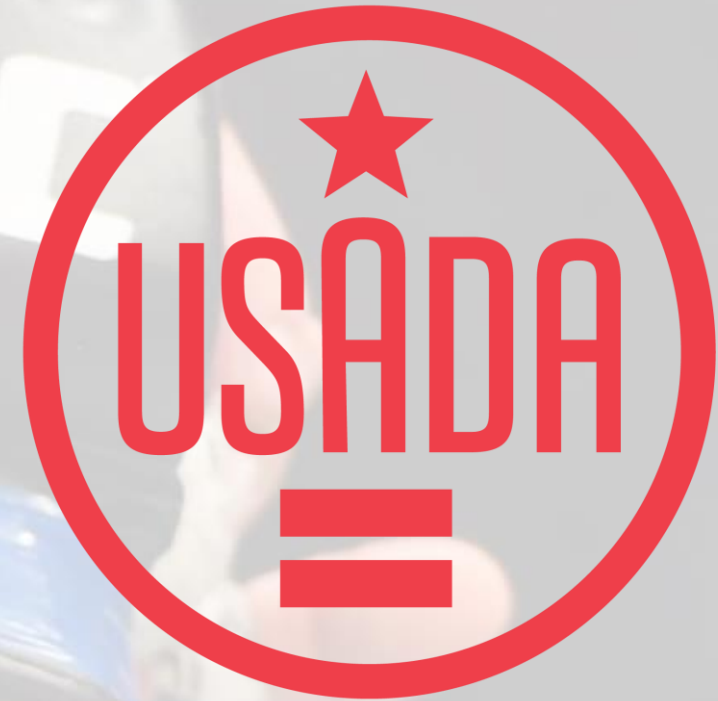
- Model Prohibited List
- Ways we can collaborate





# UFC Anti-Doping Program

- UFC contracted USADA in 2015
- Independently administer a comprehensive anti-doping program
  - Testing – IC/OOC year round
  - Investigations
  - Results Management
  - Education
- Progressive for professional sport



**UFC Anti-Doping Program**



# WADA Prohibited List

## How does a substance or method make it to the prohibited list? ✕

The WADA Prohibited List may include any substance and methods that satisfy any two of the following three criteria:

- 01 It has the potential to enhance or enhances sport performance;
- 02 It represents an actual or potential health risk to the Athlete;
- 03 It violates the spirit of sport (this definition is outlined in the Code).

Substances or methods which mask the effect or detection of prohibited substances are also prohibited. In addition, a substance which has not been approved for human use is likely to be prohibited as well.





# UFC (Model) Prohibited List

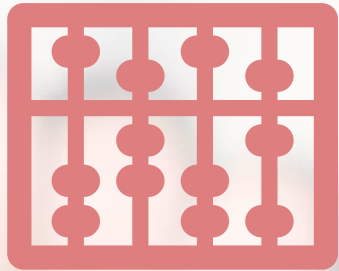


- Modeled on WADA Prohibited List
- Updated annually to incorporate WADA changes
- Modified based on common sense and fairness
- Customized to fit combat sports
- Supported by science and industry surveillance

Effective January 1, 2022



# Major Differences



**Decision  
Concentration  
Levels**



**Higenamine**



**THC/Cannabinoids**

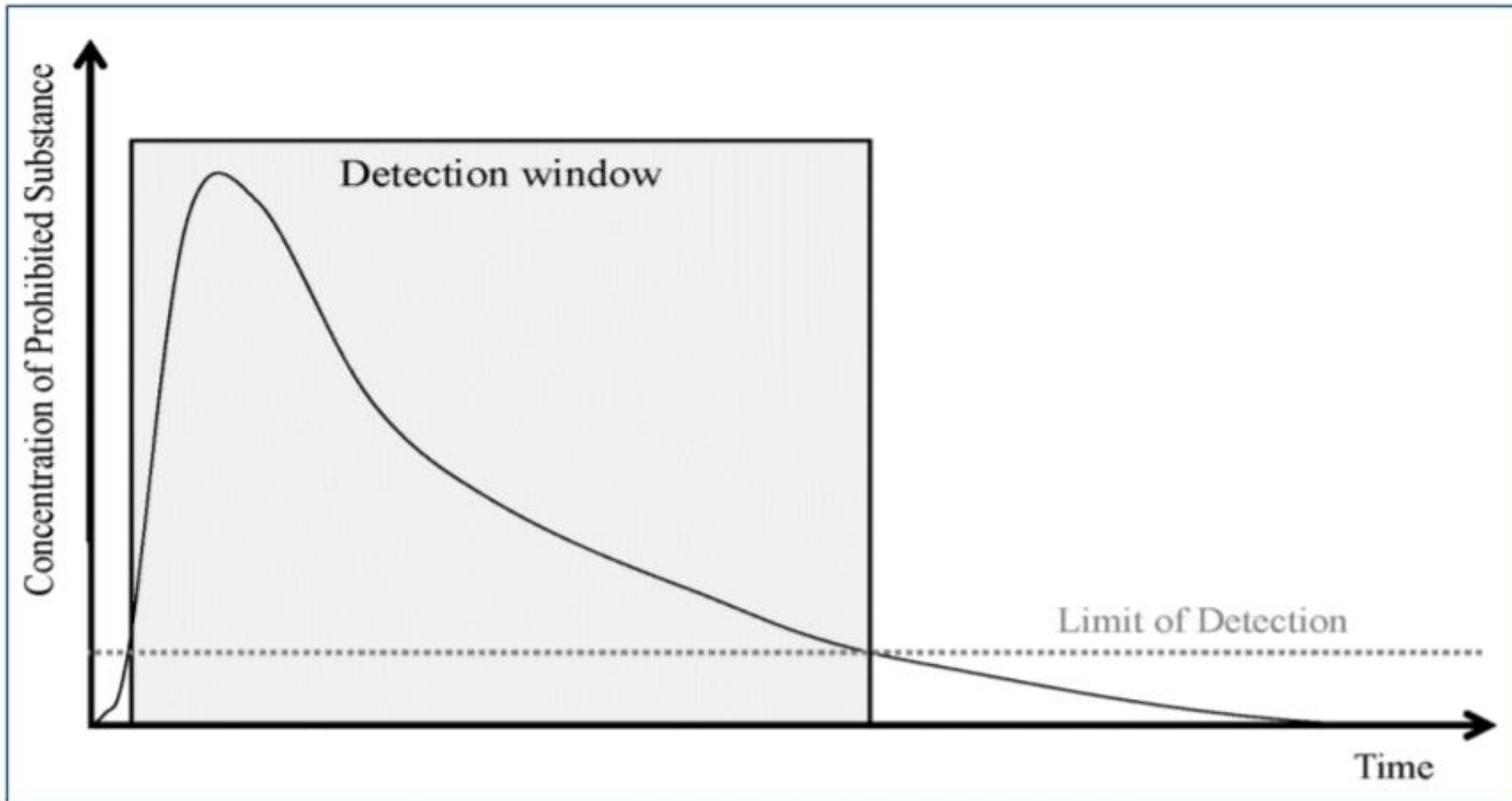


**Glucocorticoids**



# Laboratory Detection

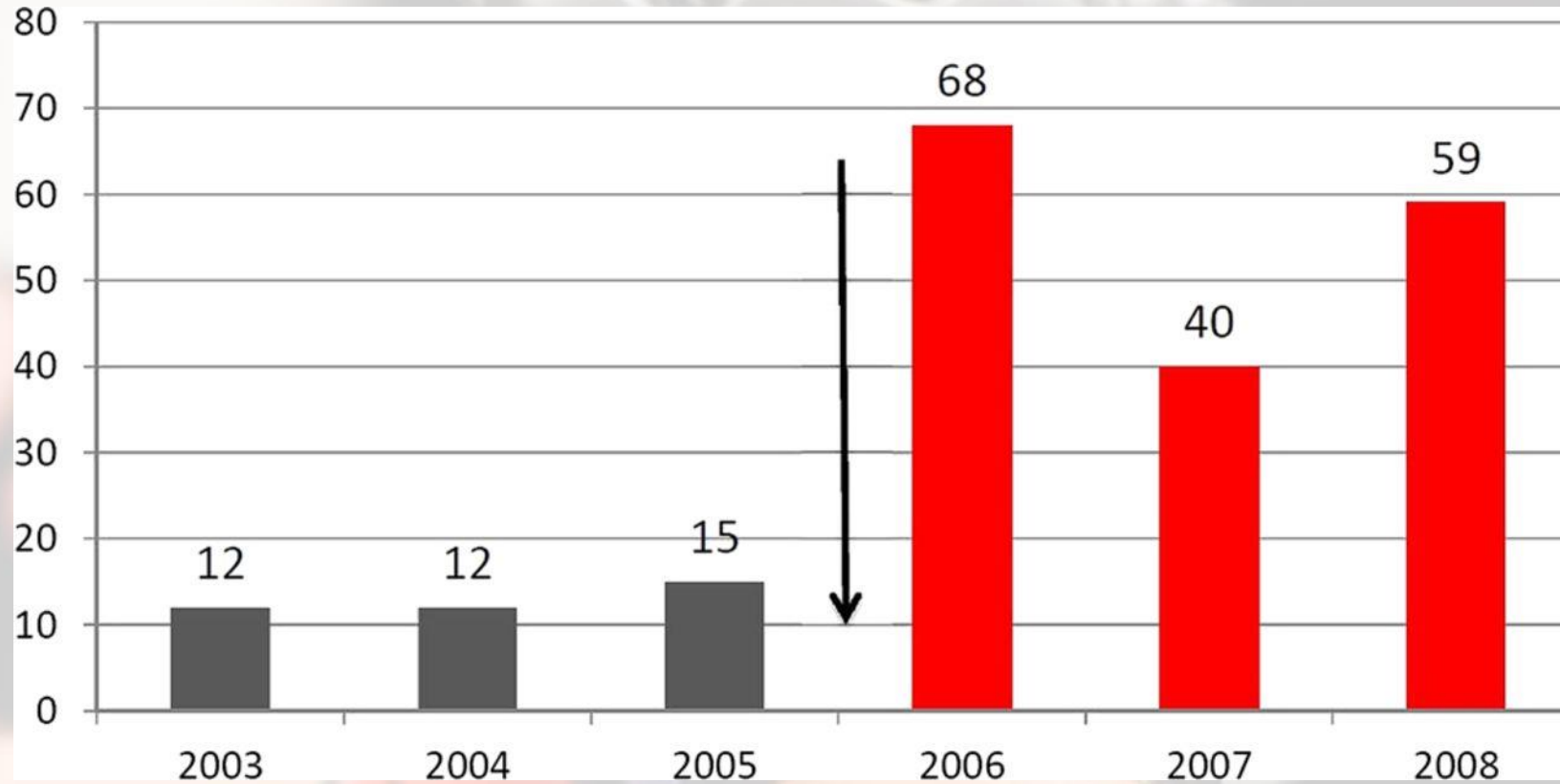
## Detection Window



- Concentration of a prohibited substance/metabolite is excreted over time
- Increasing detection window allows for a greater likelihood of detection
- Improving both the limit of detection and discovery of metabolites can increase detection time



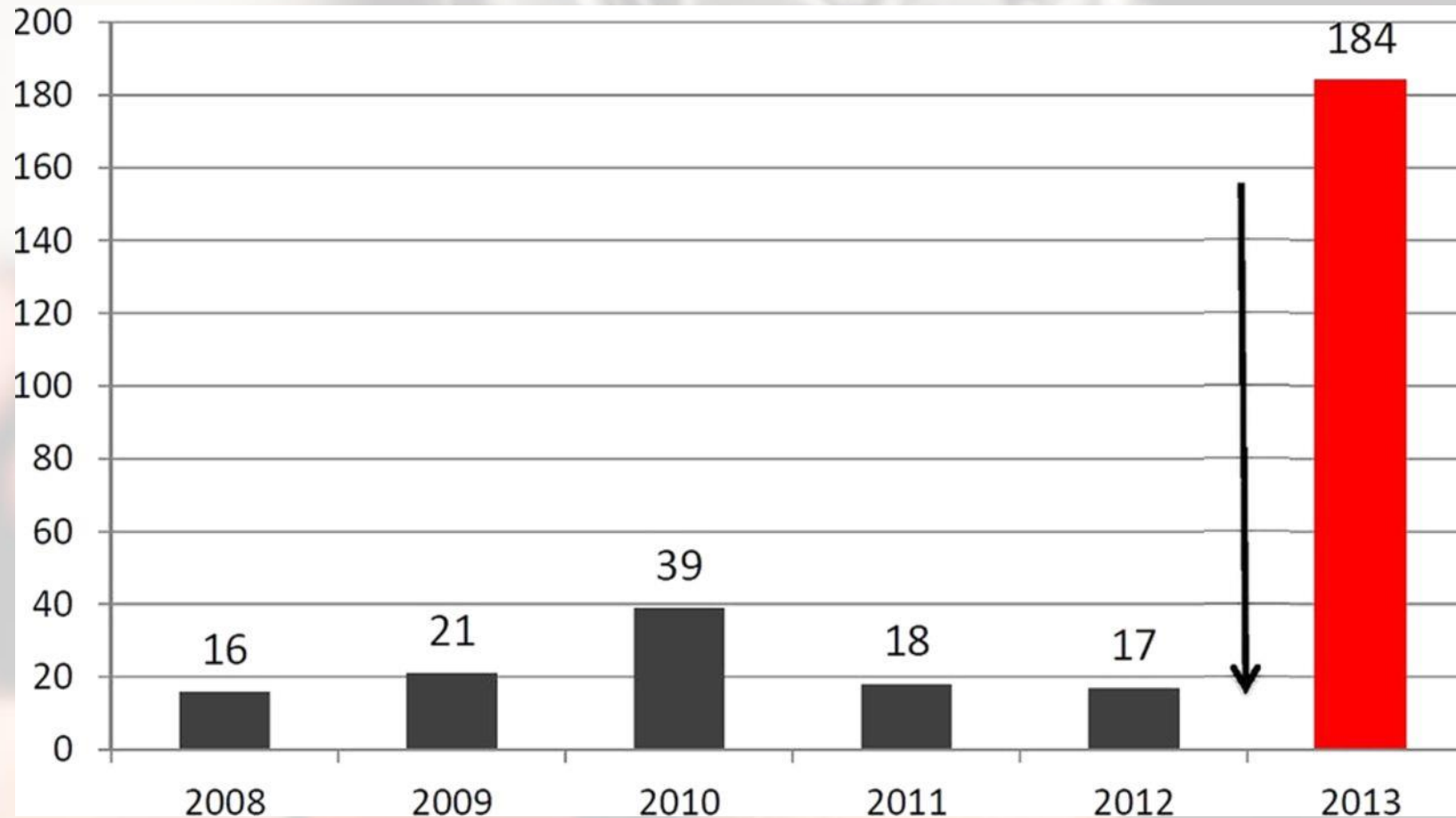
**Adverse analytical findings for metandienone in the World Anti-Doping Agency (WADA) accredited laboratory Cologne before and after the prolongation of the detection window for metandienone by the implementation of a new long-term metabolite in the screening procedure in January 2006.**







Adverse analytical findings for stanozolol in the World Anti-Doping Agency (WADA) accredited laboratory Cologne before and after the prolongation of the detection window for stanozolol by the use of high-resolution mass spectrometry in combination with the implementation of old and new stanozolol metabolites and a new long-term metabolite in December 2012 (status from 1 December 2013).





# Is Lower Better?

Counts of detected prohibited substances (or their metabolites) from athletes ( $n = 142$ ) who generated an Anti-Doping Rule Violation from the IOC re-testing of samples from the 2004, 2008 and 2012 Olympic Games

Games	Count of detected prohibited substances (or their metabolites) from the IOC re-tests of samples collected at the 2004–2012 summer Olympic Games			
	DHCMT	Stanozolol	Other exogenous AAS <sup>a</sup>	Other substances <sup>b</sup>
2004 Athens	–	–	4	1
2008 Beijing	41	22	6	15
2012 London	59	28	11	4
Total	100	50	21	20

DHCMT dehydrochloromethyltestosterone, AAS anabolic androgenic steroid, EPO erythropoietin, CERA continuous EPO receptor activator

<sup>a</sup>Either: oxandrolone, metenolone, methandienone, drostanolone, 1-androsterone or clostebol

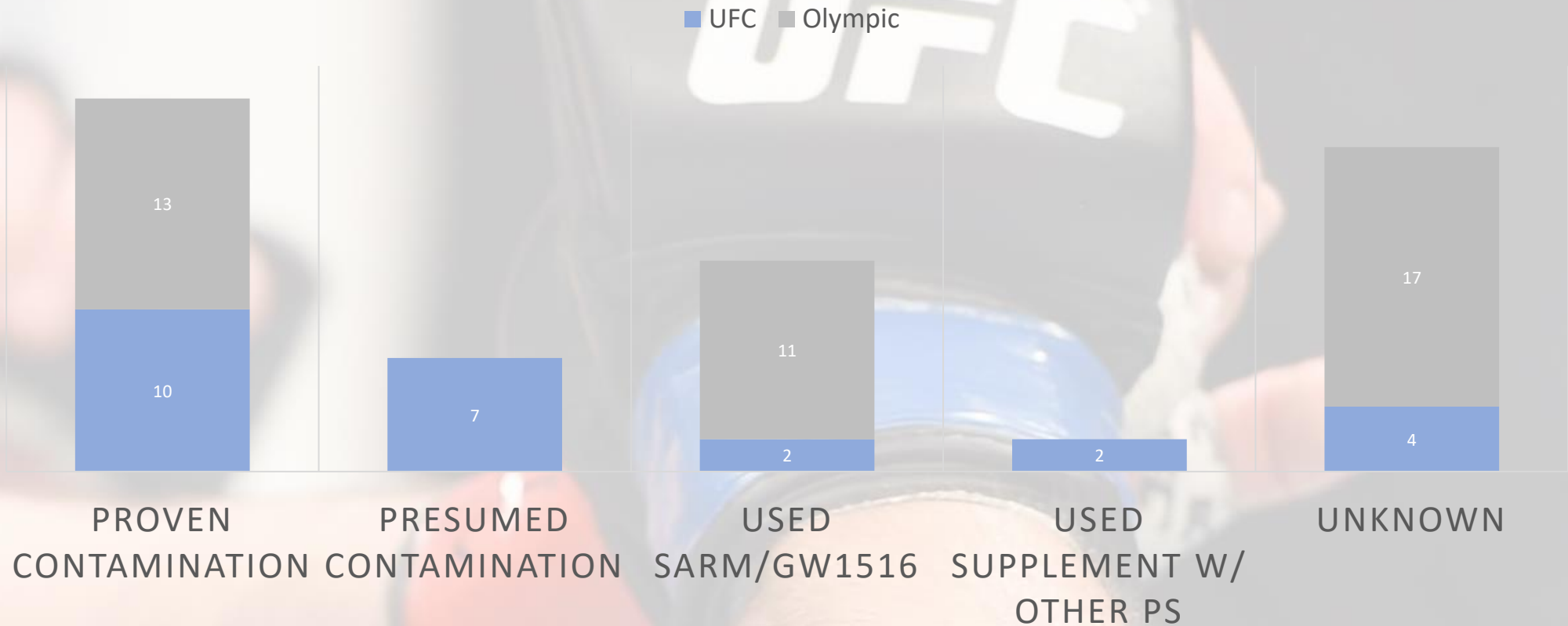
<sup>b</sup>Either: EPO; CERA, Growth Hormone-Releasing Peptide-2, acetazolamide, methylhexanamine, tamoxifen, clenbuterol, ipamorelin, Athlete Biological Passport Violation or sibutramine

- Catching intentional cheats with sample reanalysis has proved successful
- The burden remains with the athlete to demonstrate the source of the positive test
- With improvements of detection, there is now a new problem of adequate differentiation between doping and inadvertent exposure



# Contamination Prevalence

SARM/GW1516 SANCTIONS - BY SOURCE





# Contamination Prevalence

## Supplement411 High Risk List

42 products added so far in 2021

- 20 contain anabolic agents
- 2 contain hormone & metabolic modulators
  - 20 contain stimulants

721 total active products

### Total:

14% of all sanctions were due to proven contamination

### Olympic:

11% of announced sanctions were due to proven contamination

### UFC:

22% of announced sanctions were due to proven contamination



# Current Environment

Contamination prevalence is growing  
Supplement industry is growing

→ Estimated concentration of prohibited substance in sample is not conclusive of doping or contamination

→ Strict liability / burden of proof

Laboratory sensitivity of detection is lower  
Longer-term metabolite detection



# Thresholds

<b>Clomiphene</b>	<b>0.1 ng/mL</b>
<b>Dehydrochloromethyltestosterone (DHCMT) long-term metabolite (M3)</b>	<b>0.1 ng/mL</b>
<b>Selective Androgen Receptor Modulators (SARMs)</b>	<b>0.1 ng/mL</b>
<b>GW-1516 (GW-501516) metabolites</b>	<b>0.1 ng/mL</b>
<b>Epitrenbolone (Trenbolone metabolite)</b>	<b>0.2 ng/mL</b>



# Threshold Statistics

UFC DCL TESTS	TESTS	ATHLETES
OSTARINE	29	9
LGD-4033	10	7
GW1516	3	3
DHCMT	68	12
CLENBUTEROL	7	7
EPITRENBOLONE	1	1
<b>TOTAL</b>	<b>118</b>	<b>39</b>



# Why Adopt It?



**Based on fairness,  
common sense, science**



**Customized to fit combat  
sport**



**Consistency among states  
and UFC program**





# Collaboration



**Share Test Results**



**Share Sanctions**

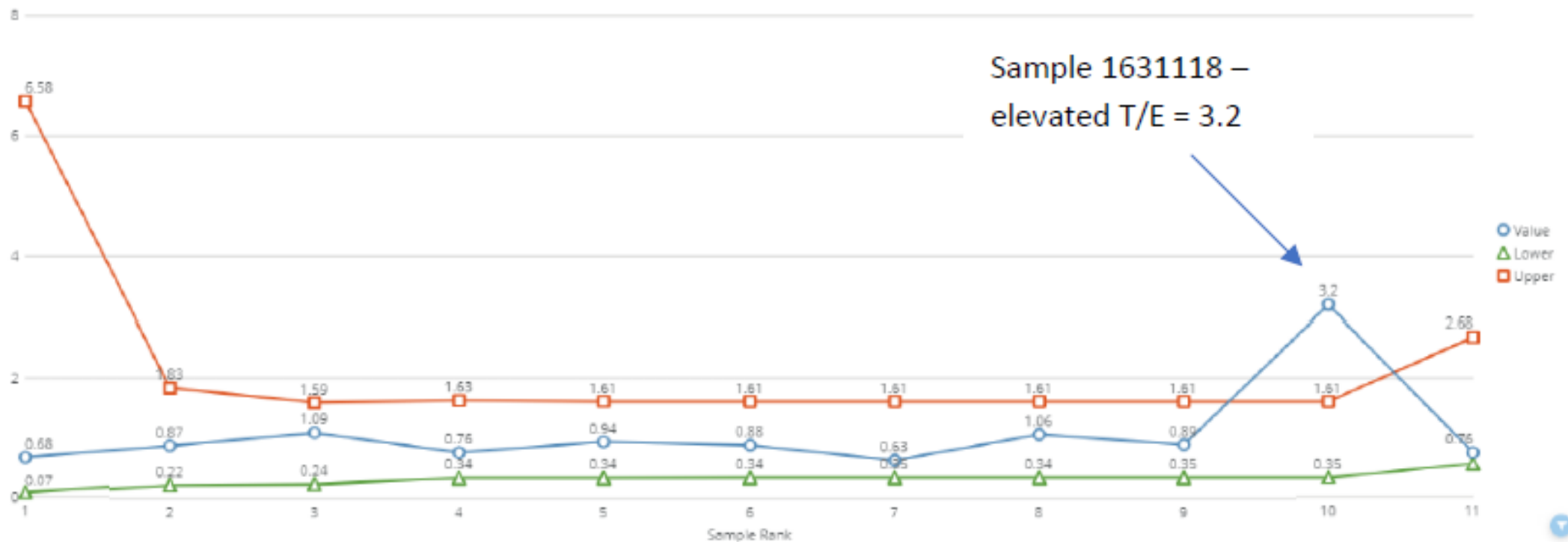


**Support Cases**



# Biological Passport

UFC T/E



# Questions?

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UFC Anti-Doping Program



# Higenamine – THC – Glucocorticoids

## Higenamine

- Used as a stimulant not a beta-2 agonist
- Prohibited only IC by UFC PL

## THC/Cannabinoids

- Only prohibit THC and cannabimimetics
- CBD and other cannabinoids are not prohibited
- Positive tests managed as ATF
- Follow up investigation

## Glucocorticoids

- Corticosteroids such as cortisone shots
- WADA changed status in 2021
- UFC PL instituted a medical review