# THE 2015 PROHIBITED LIST

# WORLD ANTI-DOPING CODE

# DATE OF ENTRY INTO FORCE : 1 JANUARY 2015

In accordance with Article 4.2.2 of the World Anti-Doping Code, all *Prohibited Substances* shall be considered as "*Specified Substances*" except Substances in classes S1, S2, S.4.4, S.4.5, S6.a, and *Prohibited Methods* M1, M2 and M3.

## SUBSTANCES AND METHODS PROHIBITED AT ALL TIMES (IN- AND OUT-OF-COMPETITION)

### PROHIBITED SUBSTANCES

### S0. NON-APPROVED SUBSTANCES

Any pharmacological substance which is not addressed by any of the subsequent sections of the *List* and with no current approval by any governmental regulatory health authority for human therapeutic use (e.g drugs under pre-clinical or clinical development or discontinued, designer drugs, substances approved only for veterinary use) is prohibited at all times.

# S1. ANABOLIC AGENTS

Anabolic agents are prohibited.

# 1. Anabolic Androgenic Steroids (AAS)

**a**. Exogenous<sup>\*</sup> AAS, including:

**1-androstenediol** ( $5\alpha$ -androst-1-ene-3 $\beta$ ,17 $\beta$ -diol); **1-androstenedione** ( $5\alpha$ -androst-1-ene-3,17-dione); **bolandiol** (estr-4-ene-36,176-diol); **bolasterone**; **boldenone**; **boldione** (androsta-1,4-diene-3,17-dione);  $([1,2] oxazolo[4',5':2,3] pregna-4-en-20-yn-17\alpha-ol);$ calusterone; clostebol; danazol dehydrochlormethyltestosterone  $(4-chloro-17\beta-hydroxy-17\alpha-methylandrosta-1,4-dien-3-one);$ desoxvmethvltestosterone  $(17\alpha$ -methyl-5 $\alpha$ -androst-2-en-17 $\beta$ -ol); drostanolone: ethylestrenol (19norpregna-4-en-17 $\alpha$ -ol); fluoxymesterone; formebolone: furazabol (17α-methyl [1,2,5]oxadiazolo[3',4':2,3]-5 $\alpha$ -androstan-17 $\beta$ -ol); 4-hydroxytestosterone gestrinone; (4,17βdihydroxyandrost-4-en-3-one); mestanolone: mesterolone: metandienone  $(17\beta-hydroxy-17\alpha$ methylandrosta-1,4-dien-3-one); metenolone; methandriol; methasterone (17β-hydroxy-2α,17α-dimethylmethyldienolone  $(17\beta-hydroxy-17\alpha-methylestra-4,9-dien-3-one);$  $5\alpha$ -androstan-3-one); methyl-1testosterone ( $17\beta$ -hydroxy- $17\alpha$ -methyl- $5\alpha$ -androst-1-en-3-one); methylnortestosterone ( $17\beta$ -hydroxy- $17\alpha$ methylestr-4-en-3-one); methyltestosterone; metribolone (methyltrienolone, 17β-hydroxy-17α-methylestramibolerone; nandrolone: 19-norandrostenedione (estr-4-ene-3,17-dione); 4,9,11-trien-3-one); norboletone; norclostebol; norethandrolone; oxabolone; oxandrolone; oxymesterone; oxymetholone;  $(17\beta-[(tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5\alpha-androstane);$ prostanozol quinbolone; stanozolol; stenbolone; 1-testosterone (17β-hydroxy-5α-androst-1-en-3-one); tetrahydrogestrinone (17hydroxy-18a-homo-19-nor-17α-pregna-4,9,11-trien-3-one); trenbolone (17β-hydroxyestr-4,9,11-trien-3-one); and other substances with a similar chemical structure or similar biological effect(s).

**b**. Endogenous<sup>\*\*</sup> AAS when administered exogenously:

(androst-4-ene-3,17-dione); Androstenediol (androst-5-ene-3 $\beta$ ,17 $\beta$ -diol); androstenedione dihydrotestosterone ( $17\beta$ -hydroxy- $5\alpha$ -androstan-3-one); prasterone (dehydroepiandrosterone, DHEA,  $3\beta$ hydroxyandrost-5-en-17-one); testosterone;

and their metabolites and isomers, including but not limited to:

 $5\alpha$ -androstane- $3\alpha$ ,  $17\alpha$ -diol;  $5\alpha$ -androstane- $3\alpha$ ,  $17\beta$ -diol;  $5\alpha$ -androstane- $3\beta$ ,  $17\alpha$ -diol;  $5\alpha$ -androstane-5ß-androstane-3 $\alpha$ .17 $\beta$ -diol: androst-4-ene-3 $\alpha$ .17 $\alpha$ -diol: androst-4-ene-3α.17β-diol: 36.176-diol: androst-4-ene-3 $\beta$ ,17 $\alpha$ -diol; androst-5-ene-3 $\alpha$ ,17 $\alpha$ -diol; androst-5-ene-3 $\alpha$ ,17 $\beta$ -diol; androst-5-ene-3 $\alpha$ ,17 $\beta$ -diol; androst-5-ene-3 $\alpha$ ,17 $\alpha$ -diol; and a diverse an **3β,17α-diol**; **4-androstenediol** (androst-4-ene-3β,17β-diol); **5-androstenedione** (androst-5-ene-3,17dione); and rosterone ( $3\beta$ -hydroxy- $5\alpha$ -and rostan-17-one); epi-dihydrotestosterone; epitestosterone; etiocholanolone; 7α-hydroxy-DHEA; 7β-hydroxy-DHEA; 7-keto-DHEA; 19-norandrosterone; 19noretiocholanolone.

### 2. Other Anabolic Agents, including but not limited to:

Clenbuterol, selective and receptor modulators (SARMs, e.g. and arine and ostarine), tibolone. zeranol and zilpaterol.

For purposes of this section:

exogenous" refers to a substance which is not ordinarily produced by the body naturally. "endogenous" refers to a substance which is ordinarily produced by the body naturally.

#### S2. PEPTIDE HORMONES, GROWTH FACTORS, RELATED SUBSTANCES AND MIMETICS

The following substances, and other substances with similar chemical structure or similar biological effect(s), are prohibited:

#### 1. **Erythropoietin-Receptor agonists:**

1.1 Erythropoiesis-Stimulating Agents (ESAs) including e.g. erythropoietins (EPO); EPO-Fc; EPO-mimetic peptides (EMP), darbepoietin (dEPO); e.g. CNTO 530 and peginesatide; and methoxy polyethylene glycol-epoetin beta (CERA);

Non-erythropoietic EPO-Receptor agonists, e.g. ARA-290, asialo EPO 12 and carbamylated EPO;

- 2. Hypoxia-inducible factor (HIF) stabilizers, e.g. cobalt and FG-4592; and HIF activators, e.g. argon, xenon;
- Chorionic Gonadotrophin (CG) and Luteinizing Hormone (LH) and their releasing 3. factors, e.g. buserelin, gonadorelin and triptorelin, in males:
- 4. Corticotrophins and their releasing factors, e.g corticorelin;
- Growth Hormone (GH) and its releasing factors including Growth Hormone Releasing Hormone 5. (GHRH) and its analogues, e.g. CJC-1295, sermorelin and tesamorelin; Growth Hormone Secretagogues (GHS), e.g. ghrelin and ghrelin mimetics, e.g. anamorelin and ipamorelin; and GH-Releasing Peptides (GHRPs), e.g. alexamorelin, GHRP-6, hexarelin and pralmorelin (GHRP-2).

Additional prohibited growth factors:

**Fibroblast Growth Factors** (FGFs); **Hepatocyte Growth Factor** (HGF); **Insulin-like Growth Factor-1** (IGF-1) and its **analogues**; **Mechano Growth Factors** (MGFs); **Platelet-Derived Growth Factor** (PDGF); **Vascular-Endothelial Growth Factor** (VEGF) and any other growth factor affecting muscle, tendon or ligament protein synthesis/degradation, vascularisation, energy utilization, regenerative capacity or fibre type switching.

# S3. <u>BETA-2 AGONISTS</u>

All beta-2 agonists, including all optical isomers, e.g. *d*- and *l*- where relevant, are prohibited.

Except:

- Inhaled **salbutamol** (maximum 1600 micrograms over 24 hours);
- Inhaled formoterol (maximum delivered dose 54 micrograms over 24 hours); and
- Inhaled **salmeterol** in accordance with the manufacturers' recommended therapeutic regimen.

The presence in urine of salbutamol in excess of 1000 ng/mL or formoterol in excess of 40 ng/mL is presumed not to be an intended therapeutic use of the substance and will be considered as an *Adverse Analytical Finding (AAF)* unless the *Athlete* proves, through a controlled pharmacokinetic study, that the abnormal result was the consequence of the use of the therapeutic inhaled dose up to the maximum indicated above.

### S4. HORMONE AND METABOLIC MODULATORS

The following hormone and metabolic modulators are prohibited:

- 1. Aromatase inhibitors including, but not limited to: aminoglutethimide; anastrozole; androsta-1,4,6-triene-3,17-dione (androstatrienedione); 4-androstene-3,6,17 trione (6-oxo); exemestane; formestane; letrozole and testolactone.
- 2. Selective estrogen receptor modulators (SERMs) including, but not limited to: raloxifene; tamoxifen and toremifene.
- 3. Other anti-estrogenic substances including, but not limited to: clomiphene; cyclofenil and fulvestrant.
- 4. Agents modifying myostatin function(s) including, but not limited, to: myostatin inhibitors.
- 5. Metabolic modulators:
  - 5.1 Activators of the AMP-activated protein kinase (AMPK), e.g. AICAR; and Peroxisome Proliferator Activated Receptor  $\delta$  (PPAR $\delta$ ) agonists, e.g. GW 1516;
  - 5.2 **Insulins**;
  - 5.3 Trimetazidine.

## S5. DIURETICS AND MASKING AGENTS

The following **diuretics** and **masking agents** are prohibited, as are other substances with a similar chemical structure or similar biological effect(s).

Including, but not limited to:

- **Desmopressin**; probenecid; plasma expanders, e.g. glycerol and intravenous administration of albumin, dextran, hydroxyethyl starch and mannitol.
- Acetazolamide; amiloride; bumetanide; canrenone; chlortalidone; etacrynic acid; furosemide; indapamide; metolazone; spironolactone; thiazides, e.g. bendroflumethiazide, chlorothiazide and hydrochlorothiazide; triamterene and vaptans, e.g. tolvaptan.

Except:

- Drospirenone; pamabrom; and topical dorzolamide and brinzolamide.
- Local administration of felypressin in dental anaesthesia.

The detection in an *Athlete's Sample* at all times or *In-Competition*, as applicable, of any quantity of the following substances subject to threshold limits: formoterol, salbutamol, cathine, ephedrine, methylephedrine and pseudoephedrine, in conjunction with a diuretic or masking agent, will be considered as an *Adverse Analytical Finding* unless the *Athlete* has an approved *TUE* for that substance in addition to the one granted for the diuretic or masking agent.

# **PROHIBITED METHODS**

# M1. MANIPULATION OF BLOOD AND BLOOD COMPONENTS

The following are prohibited:

- **1.** The *Administration* or reintroduction of any quantity of autologous, allogenic (homologous) or heterologous blood, or red blood cell products of any origin into the circulatory system.
- Artificially enhancing the uptake, transport or delivery of oxygen. Including, but not limited to: Perfluorochemicals; efaproxiral (RSR13) and modified haemoglobin products, e.g. haemoglobinbased blood substitutes and microencapsulated haemoglobin products, excluding supplemental oxygen.
- **3.** Any form of intravascular manipulation of the blood or blood components by physical or chemical means.

### M2. CHEMICAL AND PHYSICAL MANIPULATION

The following are prohibited:

- Tampering, or Attempting to Tamper, to alter the integrity and validity of Samples collected during Doping Control. Including, but not limited to: Urine substitution and/or adulteration, e.g. proteases.
- 2. Intravenous infusions and/or injections of more than 50 mL per 6 hour period except for those legitimately received in the course of hospital admissions, surgical procedures or clinical investigations.

# M3. <u>GENE DOPING</u>

The following, with the potential to enhance sport performance, are prohibited:

- 1. The transfer of polymers of nucleic acids or nucleic acid analogues;
- 2. The use of normal or genetically modified cells.

### SUBSTANCES AND METHODS PROHIBITED IN-COMPETITION

#### In addition to the categories S0 to S5 and M1 to M3 defined above, the following categories are prohibited *In-Competition*:

#### PROHIBITED SUBSTANCES

### S6. STIMULANTS

All stimulants, including all optical isomers, e.g. *d*- and *l*- where relevant, are prohibited.

Stimulants include:

a: Non-Specified Stimulants:

Adrafinil; amfepramone; amfetamine; amfetaminil; amiphenazole; benfluorex; benzylpiperazine; bromantan; clobenzorex; cocaine; cropropamide; crotetamide; fencamine; fenetylline; fenfluramine; fenproporex; fonturacetam [4-phenylpiracetam (carphedon)]; furfenorex; mefenorex; mephentermine; mesocarb; metamfetamine(*d*-); p-methylamphetamine; modafinil; norfenfluramine; phendimetrazine; phentermine; prenylamine and prolintane.

A stimulant not expressly listed in this section is a Specified Substance.

b: Specified Stimulants.

Including, but not limited to:

Benzfetamine; cathine<sup>\*\*</sup>; cathinone and its analogues, e.g. mephedrone, methedrone, and  $\alpha$ pyrrolidinovalerophenone; dimethylamphetamine; ephedrine; epinephrine (adrenaline); etamivan; etilamfetamine; etilefrine; famprofazone; fenbutrazate; fencamfamin; heptaminol; hydroxyamfetamine (parahydroxyamphetamine); isometheptene: levmetamfetamine; meclofenoxate: methylenedioxymethamphetamine; methylephedrine<sup>\*\*\*</sup>; methylhexaneamine (dimethylpentylamine); methylphenidate; nikethamide; norfenefrine; octopamine; oxilofrine (methylsynephrine); pemoline; and its pentetrazol; phenethylamine derivatives: phenmetrazine; phenpromethamine; propylhexedrine; pseudoephedrine selegiline; sibutramine; strychnine: tenamfetamine (methylenedioxyamphetamine), tuaminoheptane;

and other substances with a similar chemical structure or similar biological effect(s).

Except:

Imidazole derivatives for topical/ophthalmic use and those stimulants included in the 2015 Monitoring Program<sup>\*</sup>.

- \* Bupropion, caffeine, nicotine, phenylephrine, phenylpropanolamine, pipradrol, and synephrine: These substances are included in the 2015 Monitoring Program, and are not considered *Prohibited Substances*.
- <sup>\*\*</sup> Cathine: Prohibited when its concentration in urine is greater than 5 micrograms per milliliter.
- Ephedrine and methylephedrine: Prohibited when the concentration of either in urine is greater than 10 micrograms per milliliter.
- Epinephrine (adrenaline): Not prohibited in local administration, e.g. nasal, ophthalmologic, or coadministration with local anaesthetic agents.
- Pseudoephedrine: Prohibited when its concentration in urine is greater than 150 micrograms per milliliter.

# S7. NARCOTICS

Prohibited:

Buprenorphine; dextromoramide; diamorphine (heroin); fentanyl and its derivatives; hydromorphone; methadone; morphine; oxycodone; oxymorphone; pentazocine and pethidine.

# S8. CANNABINOIDS

Prohibited:

- Natural, e.g. cannabis, hashish and marijuana, or synthetic <u>A9-tetrahydrocannabinol</u> (THC).
- Cannabimimetics, e.g. "Spice", JWH-018, JWH-073, HU-210.

# S9. <u>GLUCOCORTICOIDS</u>

All glucocorticoids are prohibited when administered by oral, intravenous, intramuscular or rectal routes.

### SUBSTANCES PROHIBITED IN PARTICULAR SPORTS

# P1. <u>ALCOHOL</u>

Alcohol (**ethanol**) is prohibited *In-Competition* only, in the following sports. Detection will be conducted by analysis of breath and/or blood. The doping violation threshold is equivalent to a blood alcohol concentration of 0.10 g/L.

- Air Sports (FAI)
- Archery (WA)
- Automobile (FIA)
- Motorcycling (FIM)
- Powerboating (UIM)

# P2. <u>BETA-BLOCKERS</u>

**Beta-blockers** are prohibited *In-Competition* only, in the following sports, and also prohibited *Out-of-Competition* where indicated.

- Archery (WA) \*
- Automobile (FIA)
- Billiards (all disciplines) (WCBS)
- Darts (WDF)
- Golf (IGF)
- Shooting (ISSF, IPC) \*
- Skiing/Snowboarding (FIS) in ski jumping, freestyle aerials/halfpipe and snowboard halfpipe/big air
- Underwater sports (CMAS) in constant-weight apnoea with or without fins, dynamic apnoea with and without fins, free immersion apnoea, Jump Blue apnoea, spearfishing, static apnoea, target shooting and variable weight apnoea.
  - \* Also prohibited Out-of-Competition

Including, but not limited to:

Acebutolol; alprenolol; atenolol; betaxolol; bisoprolol; bunolol; carteolol; carvedilol; celiprolol; esmolol; labetalol; levobunolol; metipranolol; metoprolol; nadolol; oxprenolol; pindolol; propranolol; sotalol and timolol.