WORLD ANTI-DOPING AGENCY
play true

***The World Anti-Doping Agency (WADA) promotes, coordinates and monitors, at the international level, the fight against doping in all its forms. Through this independent agency, the Olympic Movement and the Public Authorities have intensified their efforts to keep drugs out of sport***

# 2017 Scientific Research Topics

The World Anti-Doping Agency's (WADA) Health, Medical and Research Committee (HMRC) has identified relevant areas of research in the field of anti-doping, in particular those related to the List of Prohibited Substances and Methods in sport (for the latest version of the Prohibited List, go to www.wada-ama.org).

WADA promotes and funds, on a yearly basis, scientific projects in the anti-doping field covering the development or optimization of analytical tools for the detection and/or quantification of doping substances or methods, consolidation of the Athlete Biological Passport (ABP), as well as the pharmacology of prohibited substances and drug cocktails. **In this context, WADA gives high priority to projects with direct and imminent applicability** in the fight against doping in sport **and rarely funds basic research projects.**

The proposals will be reviewed by external independent reviewers and a further panel of experts. The final ranking and recommendation will be performed by WADA's HMRC.

**High priority will be given to projects addressing:**

- **Detection of peptide hormones and growth factors**
- **Improved window or limits of detection for prohibited substances/methods (e.g. detection of new long-term metabolites, improved methodologies of detection, etc).**
- **Autologous blood transfusions**
- **The Athlete's Biological Passport (e.g. new biomarkers and target analytes of the ABP, improvement of current models, etc)**
- **Detection/Identification of novel doping trends**

***Please note that WADA will issue a special call for grants early in 2017 on the discovery of biomarkers of erythropoietin doping by proteomics and metabolomics***

For 2017, submitted research projects shall be classified as follows:

A. **Detection of doping substances/methods: methodologies in analytical chemistry,** and in particular research addressing:
    - The detection of doping substances and methods using liquid or gas chromatography, mass spectrometry, or new methods in analytical chemistry.

**B. Detection of doping substances / methods: affinity-binding and biochemical methodologies,** and in particular research addressing:

- The detection of doping substances and methods using antibodies, other affinity-binding reagents or other biochemical methods.
- Multiplexing of validated affinity-based assays and other biochemical approaches.

**C. Pharmacological studies on doping substances / methods,** and in particular research addressing:

- Establishment and/or refinement of threshold values for prohibited substances showing doping effect above a certain dose or depending on route of administration;
- Pharmacokinetics/pharmacodynamics/metabolism of prohibited substances and methods including impact of gender, ethnic, and environmental factors affecting excretion, detection or action;
- Doping potential and strategies for detection of drug interactions (cocktail formulations) or micro-dosing.
- Long-term metabolites or markers of doping substances.

**D. The Athlete's Biological Passport,** and in particular research addressing:

- Discovery and validation of new discriminant markers for the haematological and steroid modules of the ABP.
- Evaluation of confounding factors.
- Expansion of the ABP approach to other target analytes (e.g. peptide hormones as part of the endocrine module)

**E. Detection of doping substances / methods: molecular biology, "Omics" and miscellaneous methodologies,** and in particular research addressing:

- The *"in vivo"* detection of gene doping and gene manipulation;
- Validation of molecular and metabolic signatures *'in vivo"* to detect use of prohibited substances and methods
- Detection of stem cell doping in muscle(s), connective tissues or other tissues and organs relevant in sport.

WADA invites you to submit your application for projects related to the topics above by **February 15, 2017 (24:00 h GMT)**. Please use the electronic system "WADA Grants" accessible from https://grants.wada-ama.org/science/home to submit your application. The application shall be submitted in English and shall include the following enclosures. **An English translation of documentation should be appended where necessary:**

- A project description (max. 5 pages) including objectives, methodology, experimental design, timelines, preliminary results and relevant bibliographic references;
- Information about the researchers (curriculum vitae), their home institution, and its resources;

- *For research involving human subjects and/or human samples (including existing material): a copy of local ethics committee approval, participant information letter and consent form; and
- *For research involving animals, a copy of animal care committee approval.

** If these documents are pending at the time of submission, they will be required once the grant is approved for funding.*

The full original application form should be printed, signed by all investigators and sent to:

Ms Violet Maziar
Executive Assistant
Science Department/WADA
800, Place Victoria (Suite 1700)
PO Box 120
Montreal (Quebec) H4Z 1B7
CANADA

All submitted projects will be peer-reviewed by independent external reviewers, a panel of experts, and WADA's Health, Medical and Research Committee will make the final proposal to WADA's Executive Committee. A response on the application can be expected by mid-October 2017. WADA will only fund projects deemed appropriate.

Dr Valerie Fourneyron
Chair, WADA Health, Medical and Research Committee

Mr. Olivier Niggli
WADA Director General