**CALL FOR PROJECT PROPOSALS**

**Background**

Established in 1999, the World Anti-Doping Agency (WADA) is an international, independent agency composed and funded equally by the sports movement and governments of the world. Its key activities include scientific research, education, development of anti-doping capacity, investigations, and monitoring compliance with the World Anti-Doping Code (Code) — the document harmonizing anti-doping policies across all sports and all countries. WADA's mission is to lead a collaborative worldwide movement for doping-free sport.

The Fonds de recherche du Québec (FRQ) consists of three funds (Nature and Technology, Health, and Society and Culture) with a common mission to promote and financially support research, knowledge dissemination and researcher training in Quebec and to establish the necessary partnerships to fulfill this mission. Its General Director is the Chief Scientist of Québec, Rémi Quirion, who has had an extensive research career.

Science is the key driver for advances in the fight against doping. Society depends on innovative, fact-based research to identify new doping trends, new substances, new means of administration and new detection methods. The impact of this research, especially in areas like education, extends well beyond WADA's main objective of protecting athletes. Knowledge generated by anti-doping research is applicable to broader societal challenges. These challenges are not only linked to digital technology but also require distinct, yet complementary expertise and research methods already being developed by a number of Quebec researchers. With this in mind, the FRQ and WADA have joined together to launch a call for project proposals regarding the impact of the use of artificial intelligence and big data collection on numerous facets of society, and the overarching questions that this technological progress raises in terms of ethics, law and good practices.

**Research topic**

WADA funds research projects on optimizing analytical detection tools and consolidating the Athlete Biological Passport, with a view to identifying risk factors for health and the use of prohibited substances within the target population. These projects are akin to broader studies on expanding biometric data available for target individuals. The data in question are generated by the application of artificial intelligence to preventive medicine, routine medical procedures and highly personalized treatments assisted by digital innovation.

Numerous articles highlight the advantages as well as the risks of the use of artificial intelligence and the rapid growth of big data. A report on big data and health by the International Bioethics Committee (IBC–UNESCO) "presents recommendations so that

the full potential of Big Data can be tapped while at the same time human dignity, fundamental rights and fundamental freedoms are upheld" (http://unesdoc.unesco.org/images/0024/002487/248724e.pdf).

In this context, WADA and the FRQ wish to reflect jointly on the application and impact of artificial intelligence in the area of anti-doping, and the terms for applying this overarching model to other areas of society. The maximum grant per project will be CAD$500,000. Priority will be given to projects focusing on responsible management of big data, the good practices that need to be implemented to support the integration of digital innovation into the fight against doping, application to societal problems related to drug abuse, and application in the health and education sectors, including research in the following areas:

Primarily:

- Possible analytical techniques and application of artificial intelligence that can identify the use of prohibited substances and/or actions suggesting attempts by athletes, members of an organization or an organization itself to bypass anti-doping rules. The analysis will be based on data selected by WADA and, if applicable, propose new sources of data, both external (public) and internal.

Related:

- The ethical dimensions encompassing the collection and use of biometric data (confidentiality, divergent interests of individuals and society);
- The legal dimensions encompassing the collection and use of biometric data (data access, professional responsibility regarding the content of the available information, sharing of computerized files of patients/clients/participants);
- Framing of biometric data collection, analysis and dissemination (education programs for sound management of biometric data, development of management tools and protocols for using data);
- The effects of disseminating biometric data about a given individual and his or her ecosystem (social repercussions, person's psychology, sociology of the population, basic rights);
- Comparative profiles of the situations in and outside Quebec.

ELIGIBILITY CRITERIA

- The research team must include at least one member based in Quebec.

**Submitting a project proposal**

Scientists interested in submitting proposals for the above-noted topics are invited to submit their applications by **5 October 2018** (24:00 GMT) via the WADA Grants platform (https://grants.wada-ama.org/science/home).

We kindly ask that all applications be submitted in English (recommended) or in French (accepted), along with translations of related documents appended as relevant. The following documents must be submitted via the platform:

1. A project description (maximum five pages) including objectives, methodology, experimental design, timelines, preliminary results and relevant bibliographic references;

2. Information about the researchers (Canadian researchers are encouraged to submit their Canadian Common CV), their home institution and the institution's resources;

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

4. * For research involving animals, a copy of the 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 evaluation criteria will be as follows:

- Project quality (relevance, rigour, clarity, realism, originality);
- The research teams' competence and expertise;
- The expected benefits.

  Assets for the project proposal: Training and promotion of the upcoming generation of researchers and preparation of a knowledge-transfer strategy.

All of the projects submitted will be reviewed initially by independent external experts, and then by a panel of WADA/FRQ and external experts. The projects that are retained will be submitted to the WADA and FRQ executive committees for approval. WADA will fund only projects that are deemed appropriate.

Applicants will receive a reply around the end of January 2019.

WADA and the FRQ thank all of the scientists who submit projects that are related to one of the above-described themes and are aimed at contributing to the advancement of research on the impact of artificial intelligence and digital technology in various sectors of society, and the terms of reference.

Sincerely,


Prof. Ugur Erdener                                  Dr. Rémi Quirion
Chair                                                        Chief Scientist of Québec
Health, Medical and Research Committee,    FRQ
WADA