

THE BIOLOGICAL PASSPORT PROGRAM: CONSIDERATIONS ON GOVERNING ATHLETES

O PROGRAMA PASSAPORTE BIOLÓGICO: CONSIDERAÇÕES SOBRE O GOVERNO DOS ATLETAS

EL PROGRAMA PASAPORTE BIOLÓGICO: CONSIDERACIONES SOBRE EL GOBIERNO DE LOS ATLETAS

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Keywords:

Doping in Sports.
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and Society.

Abstract: This article whose main objective was to analyze the current policy proposals doping/anti-doping for sports performance. From an analysis of discourses propagated by the World Anti-Doping Agency (WADA), the Athlete Biological Passport Program and two interviews with individuals active in mainstream sports. Theoretically subsidized by the concepts of control society of Gilles Deleuze (1992), the study indicates how current policies doping/antidoping usurp innovations and scientific discoveries to build new strategies of control and manipulation of athletes.

Palavras chave:

Doping nos
Esportes.
Política.
Ciência, Tecnologia
e Sociedade.

Resumo: Este artigo tem como objetivo principal fazer uma análise das atuais políticas de doping/antidoping no esporte de rendimento. O corpus empírico da pesquisa constituiu-se de um conjunto de discursos da Agência Mundial Antidoping (WADA-AMA), do Programa Passaporte Biológico do Atleta e de duas entrevistas com indivíduos que atuam no mainstream esportivo. Amparando-se especialmente no conceito de sociedades de controle, de Gilles Deleuze, (1992), o estudo mostra como as atuais políticas de doping/antidoping se apropriaram de inovações tecnológicas e de descobertas científicas para construir novas estratégias de controle e de governo dos atletas.

Palabras clave:

Doping en los
Deportes.
Política.
Ciencia, Tecnología
y Sociedad.

Resumen: Este artículo tiene como objetivo analizar la corriente política de dopaje/anti-dopaje en el rendimiento deportivo. El corpus de investigación empírica consistió en una serie de discursos de la Agencia Mundial Antidopaje (WADA-AMA), el Programa Pasaporte Biológico del Atleta y dos entrevistas con las personas que trabajan dentro de la corriente principal de los deportes. Nosotros es el mantenimiento de los conceptos de la sociedad de control, de Gilles Deleuze (1992), el estudio muestra cómo las políticas actuales de dopaje/anti-dopaje apropiarse las innovaciones tecnológicas y los descubrimientos científicos para construir nuevas estrategias de control y el gobierno de los atletas.

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1 INTRODUCTION: CONSIDERATIONS ON SPORT AND TECHNOSCIENCE RELATIONS

Technoscience is the movement of innovation and financial investment “[...] covering the planet with new technological artifacts” and underscoring “[...] interdependence between sciences and techniques in contemporary knowledge” (ARAÚJO, 1998, p. 11). This new reality, understood as a process of transforming life into a technical object and a commodity, has helped to forge a concept of virtual and digitalized subject (CORRÊA, 2009).

Referring to technoscience, Donna Haraway (2000) says that, especially from the twentieth century on, we began to live with domination-oriented computer science, situated in a probabilistic statistical system that formulates control strategies in terms of rates, restriction costs, and degrees of freedom. For the author, that new reality has turned us into human-machine hybrids, into Cyborgs. However, Haraway (2000, p. 51) does not only regret this situation; she also calls on us to become “opposition Cyborgs”.

French philosopher Gilles Deleuze referred to the social context produced by those new real/virtual realities typical of the era of technoscience and human/machinic subjectivities, which shape and build twentieth-first century subjects. In a text entitled “Post-Scriptum on Control Societies”, he postulated that, from the second half of the twentieth century on, the disciplinary society described by Michel Foucault would be giving way to “control societies”. Deleuze argues that “[...] continuous control [increasingly] replaces testing” (DELEUZE, 1992b, p. 221).

In modern sport, especially in high performance sport, new realities arising out of technosciences and included in the logic of control societies have been used to perfect sports training techniques for improving athletic performance and also for controlling athletes by the World Anti-Doping Agency (WADA) – which promotes, coordinates and monitors the fight against doping in world sport.

In this article, from the analysis of some official discourses by WADA and a permanent program to control athletes (the Athlete Biological Passport), we will seek to analyze and reflect on the relationships between technologies in sport and their consequences for doping/anti-doping policies in performance sports.

WADA’s data system (ADAMS¹) is an example of technological expansion and its direct impact on the view of athletes’ bodies that has spread in the past two decades. According to Corrêa, “[...] DNA banks or biobanks are large collections of genetic material (DNA samples, cells, tissues, tumors or organs) associated with different types of data (genetic, medical, biological, family, social and environmental)”, (CORRÊA, 2009, p. 9), which, as we shall see, have implications for contemporary sport.

To write this article, we used a set of WADA discourses relating to doping/anti-doping, specifically those related to the Biological Passport Program. The concept of discourse was used as Deleuze himself conceived it: as discursive practices “that are made from things and words” (DELEUZE, 1988, p. 57).

Respondent A is the President of the Medical Commission of the Pan-American Sports Organization – PASO, a doctor with the International Olympic Committee (IOC) and a Member of the Board of the World Anti-Doping Agency Foundation. That respondent told us about the process of founding WADA and anti-doping samples and collections. Respondent B is a Director

of the Agency's Latin American Regional Office, currently located in Montevideo, Uruguay. This respondent accompanied the whole process of creation of WADA and works coordinating and overseeing Latin American countries to comply with the World Anti-Doping Code (CODE).

Throughout the text, we conducted analysis and reflection on doping control processes based on Gilles Deleuze's (1992) concept of "control societies". The appropriation and use of the concept, which was not designed specifically for the sporting field, was direct, as an "electrical connection" (DELEUZE 1992a, p. 16). It enabled us to analyze how WADA's transnational strategies and programs to control doping and anti-doping seek to control and govern athletes.

We draw our reflection from the analysis of WADA's policies involving out-of-competition testing and the Athlete Passport Program (which will be presented throughout the article).

2 FROM COLLECTION TECHNIQUES TO BIOBANKS

The ADAMS² system – a database keeping all information on an athlete's life – helps us identify how those information technologies contribute to building new control strategies linked to athletes' bodies and lives – for instance, the change from urine to blood tests.

Urine tests used to be welcomed by most athletes and coaches, mainly because they were not seen as an aggression against the biological limits of the body, since urine was a residue (external to the body). Our respondent A told us how the process of urine collection became safer and more effective over time. The first process occurred in 1967:

It was an extremely rudimentary process, we used bottles that were penicillin glasses [...] we used rubber caps, and [...] we would melt a seal to close the lid and use the prince's ring as a seal to prevent it from being replaced (because the prince with his coat of arms was something unique). (RESPONDENT A, 2011)

The 1972 Olympic Games in Munich were a milestone in the consolidation of the best urinary techniques, and they are still used. However, the bottles were still the greatest difficulty to keep sample storage and transportation valid. A specific kit for urine collection and storage was developed by VersaPak.³ More sophisticated and professional, that kit was used until 1992 Olympics in Barcelona. After that, some events revealed weaknesses in the process: "Someone had the idea to take that little bag to prison to see if any inmate could open it, and one of them opened it in seconds, using just a scissors, unzipping, changing the bottle and zipping it up again, using only a scissors" (RESPONDENT A, 2011).

Therefore, from 1992 to the last Olympics in 2008,⁴ a new kit was used. Developed in Switzerland by Berlinger Special⁵ and approved by the IOC/WADA, the Bereg Kit has proven to be extremely safe, according to WADA. Moreover, not only technology has improved, but also the collection site itself: "We used to do it in a regular bathroom, now it's a special mirrored bathroom so you can watch the athlete" (RESPONDENT A, 2011).

² The Anti-Doping Administration and Management System is a Web-based database management tool for data entry, storage, sharing, and reporting designed to assist stakeholders and WADA in their anti-doping operations in conjunction with data protection legislation (*Athlete Biological Passport Operating Guidelines*, 2012, p. 9).

³ Available at: <http://versapak-anti-doping.com/>. Accessed on: Jan., 2013.

⁴ We refer to 2008 Olympic Games held in Beijing/China, because they were prior to our interviews. However, we can positively say that the same kit (Bereg Kit) was used in 2012.

⁵ Available at: <http://www.berlinger.ch/index.php?id=68&L=1>. Accessed on: Jan., 2013.

The doctor also underscores the fact that since 2000, after WADA was created, standardization of actions facilitated the protocol because doping control is the same anywhere in the world, that is, it has an international standard that operators are required to follow properly.

However, despite that improvement, some weaknesses remained in urine tests. Thus, doping control policies also began using blood tests more and more, based on the assumption that what is not in urine is in blood and vice versa. In swimming competitions, for instance, anti-doping tests check the use of growth hormones and anabolic steroids. Growth hormones are found only in blood samples, while steroids are found in urine.

3 ATHLETE BIOLOGICAL PASSPORT (ABP)

Perhaps a surgery, a chip under the skin. Or maybe a keychain with a kind of GPS or something, so they can locate us and we are not responsible for always changing things if our schedules change. They can look for us on the map and see where we are.⁶

The Athlete Biological Passport (ABP) Program – one of WADA's latest investments in the fight against doping – was proposed in early 2000, but its guidelines and standards were not officially launched until 2009. It is based on periodically collected blood samples to monitor each athlete's individual variables by drawing their profile and following their progress in the sporting career. That profile can be used in doping testing to help in cases where there might be manipulation (whether by exogenous substances or by genetic doping) indicating an abnormal profile for the athlete. Moreover, athletes are tested out of competition. According to WADA, it is an effective approach because the athlete might be using substances intermittently in low doses, which makes it very difficult to detect doping through conventional analysis.

According to information from the Program's Guide,⁷ in recent years doping regimes have become more planned and they managed to take advantage of the weaknesses of traditional control protocols. That would result in the need for a more sophisticated program against doping.

The Athlete Passport Program is web-based, interactive, designed for athletes to demonstrate their sporting efforts without doping.⁸ Once they are enrolled in the program, they receive an identification number and a password, which allow access to the system. They have to update their addresses and training schedules with WADA, for out-of-competition testing.

According to the Program Guide (Athlete Biological Passport Operating Guidelines and compilation of required elements – ABP, 2012⁹), target-athletes should be chosen taking into account especially those who participate in sports with a higher risk of blood doping (with aerobic and/or resistance components), athletes who are at the risk of being doped, age and long-term prospects, elite-level activity, athletes who have already been tested in other programs, among others (GUIDELINES, 2012).

6 Interview by Swedish runner Susanna Kallur to sporting documentary film "War on Doping", produced by Matiné Film & Television, 2012.

7 The Manual with the program's presentation, regulations and tests is available on the WADA website (in English and French) with all the information on the Blood Passport. The steroid and endocrine modules are being implemented and will follow the regulations of the same manual. The passport is a set of all relevant data about an athlete, which may include longitudinal profiles of markers, heterogeneous factors and other relevant information that may assist in the evaluation of markers.

8 Available at: <http://www.wada-ama.org/en/Science-Medicine/Athlete-Biological-Passport>. Accessed on: Aug. 23, 2014.

9 Available at: <http://www.wada-ama.org/en/Science-Medicine/Athlete-Biological-Passport>. Accessed on: Aug. 23, 2014.

The Program has a database that stores and distributes the results, thus becoming a reservoir of raw materials for current and future research. Its makeup and organization as well as its purpose are directly related to technological acceleration that boosts doping in elite sports and show a view of human beings disseminated by techno-scientific thinking: statistics, measurements, samples.

WADA argues that this program serves as an educational tool for athletes because it contains several data on doping control, for example, an up-to-date list of prohibited substances and methods as well as regulations. This makes it possible to build communication among all those involved in the process because results and records of athletes with doping control information are kept in a database that can be accessed by national and international sporting bodies, by laboratories conducting tests and by WADA. Therefore, the exchange of information and mutual recognition of data offers, according to WADA, improvement in the operating efficiency of anti-doping activities (WADA, 2002). "In addition, WADA staff members are hopeful that the global database will allow WADA and authorized staff to organize, harmonize and connect testing programs to share information about athletes' whereabouts for testing purposes." (GUIDELINES ABP, 2002, p. 9-10).

Briefly, the process includes the following steps: 1) the athlete is chosen and what might be necessary for his or her passport is defined based on information already available, such as testing history and available whereabouts; 2) the right time for collection of the sample is defined; 3) sample collection authorities access the system to find the athlete's location; 4) collection is made according to the protocol attached to the ABP Manual (ABP GUIDELINES); 5) after the sample is collected and transported to an accredited laboratory, the passport form must be filled immediately to provide quick access to data relevant to the athlete, WADA, federations and confederations; 6) the laboratory analyzes the samples and enters biological results into the ADAMS system; 7) as soon as new data is entered into ADAMS, the athlete's passport is updated; 8) in case of any changes in biomarkers,¹⁰ an expert panel will review the process.

According to the Program's manual, there are two ways to know if an athlete is doped: the first is finding a doping substance on test results; the second is to see signs or symptoms that something forbidden has been used because "the drug remains longer than the substance itself" (GUIDELINES ABP, 2012, p. 26). As an example of those effects of doping, our Respondent A said: "[...] if I see an extremely strong body, a woman with lots of acnes, a very masculine face, few curves, almost no breast and no hips, I can assume she's on something".

Even though such symptoms or body signals do not condemn the athlete, they are taken as indications, as clues that raise suspicion and are aggregated with other information to make up real biomedical research dossiers. While only competition winners and some randomly selected athletes used to be tested for doping until very recently, the situation has changed: the search is for intelligent doping, which is based mainly on

[...] information from athletes who know who takes and who doesn't take doping substances, information from the police when it's available, for example, anabolics trafficking, customs information, Interpol information (Interpol has an office just to study doping routes, so it sees the distribution in the world and tries to build intelligence from it). (RESPONDENT A, 2011)

¹⁰ A markers can be a compound, group of compounds or biological variable(s) that indicates the use of a prohibited substance or prohibited method (GUIDELINES ABP, 2012, p.11).

The Athlete Passport Program follows the prospect of using intelligence for doping control, because it allows us to draw athletes' hematological profiles and their variations. For example, evidence of erythropoietin use can only be found in a blood test. If it is done repeatedly (at least four times) in a year, it is possible to tell if an athlete uses it or not, because hematocrit will increase and red blood cells become more numerous, improving oxygen transportation. In this process, even if the doping is not found directly, the signals of substance use will be. Then evidence of use is sought, rather than directly seeking doping substances. The TAS-CAS (*Tribunal Arbitral du Sport – Court of Arbitration for Sport*) already accepts those signs as proof of doping.

Although so far only two federations have implemented ABP – UCI (Union Cycliste Internationale) and IAAF (International Association of Athletics Federations) – our respondent noted that:

adherence is in progress. I believe it is advancing very well; it is the tool of the future; that is how we see it. [...] The idea is that the different sports will adhere more and more, and the several anti-doping organizations will also adhere because they are seeing the benefits of athletes having their own biological passport. [...] Not all federations have the program and it is not mandatory for now. It's something that WADA recommends. (RESPONDENT B, 2011).

On the eve of the 2012 Olympic Games in London, Portuguese distance runner Helder Ornelas was banned for four years by his country's federation, becoming the first athlete suspended for doping through the ABP system. According to IAAF president Lamine Diack, the suspension of 38-year-old athlete who participated in the 5,000 meters race at the 2000 Olympics in Sydney and the marathon in 2008 in Beijing marks a breakthrough in the fight against doping. Diack said in a statement:

Those who try to cheat within the athletics community should be warned that the Athlete Biological Passport is not merely a concept but rather an efficient method that is now being used by the IAAF Anti-Doping Department to identify, target and catch those who believe that doping is the only route to success.¹¹

Ornelas's blood samples were collected over a period of 11 months starting in December 2009, and his blood was considered abnormal (hematological profile different from his usual parameters) for the first time in May 2011, resulting in further investigation. In particular, new samples are then tested in comparison to historical samples to make sure that unacceptable deviations occurred in the athlete's biochemical composition. The samples are statistically aggregated to determine the threshold at which a pure body becomes legally impure.

During the first World Conference on Doping in Sport (Lausanne, 1999), some government officials suggested that WADA should preserve athletes' urine and blood for 20 years for new investigations. Thus, if a new drug testing method found something in the new analyses, the agency could confiscate the athlete's medal, even several years after the fact. Thus, we can see a will to punish, control and regulate that goes beyond time limits.¹²

The IAAF website offers a Medical Manual organized by a Medical and Anti-Doping Commission as part of an educational program that is conducted in several of its training centers.

¹¹ Passaporte biológico faz primeira vítima de doping no atletismo, May 2, 2012. Available at: <http://br.reuters.com/article/idBRSPE84105420120502>. Accessed on: Aug. 20, 2012.

¹² An example is the case of cyclist Lance Armstrong, winner of seven consecutive Tour de France editions from 1999 to 2005. In June 2012, the USADA – US Anti-Doping Agency – formally accused him of consuming illicit substances based on blood samples from 2009 and 2010. Armstrong was banned from the sport and had to return his seven medals, losing the titles he had already won. Lance Armstrong vai perder seus títulos do Tour de France por doping. Aug. 24, 2012. Available at: <http://oglobo.globo.com/blogs/debike/posts/2012/08/24/lance-armstrong-vai-perder-seus-titulos-do-tour-de-france-por-doping-461881.asp>. Accessed on: Aug. 30, 2012.

It is designed to help athletes to strengthen their medical organization and offer their health care providers (doctors and physiotherapists) updated information on sports medicine and doping, based on WADA's anti-doping legislation.¹³ The manual describes the history of IOC's and WADA's anti-doping policies, some cases of doped athletes, in- and out-of-competition testing, the list of prohibited substances, sanctions and testing procedures guides in and out of competition.

The IAAF was the first federation to adopt the Athlete Passport. On December 14, 2010, an article published on its website showed the impact of the program created by WADA over the IAAF. The article "Athlete Biological Passport: a new strategy that holds great promise in the fight against doping in athletics" presents a new indirect detection method focusing on the analysis of selected biomarkers, including abnormal variations that could indicate doping. That method consists of three modules: hematological, steroids, and hormones.¹⁴ Any abnormal change will be conveyed to medical experts and scientists, who will share their views and check whether the abnormality can be the result of doping.

In Brazil, the Brazilian Authority for Doping Control (ABCD) is the agency with authority to adopt and enforce anti-doping rules, conduct direct sample collection, manage test results, and conduct hearings. The Brazilian Athletics Confederation (CBAt) website has a link to the "IAAF Regulations for doping control", translated from the original version in English as well as a link called "Out of Competition – To report your location, click here".

Highly visible, that link is part of the Athlete Passport policy and must be completed by athletes participating in the program. They should keep a record with each entity in which they report their whereabouts every four months. If they do not do it and they cannot be found for out-of-competition testing, they might be punished as if they had a positive result in doping control.¹⁵ The IAAF website publishes a list¹⁶ of names of athletes selected to participate in the program, which is reviewed and revised when necessary, according to information on the website document. This Federation also enforces the requirement that athletes keep updated schedules.¹⁷ If the athlete is not found for the tests, he or she can be found guilty.¹⁸

4 THE BIOLOGICAL PASSPORT PROGRAM AND CONTROL SOCIETIES: APPROXIMATIONS

Control procedures exercised by the Athlete Biological Passport Program illustrate how control societies entered the universe of performance sports. As Deleuze pointed out, in control

13 Available at: <http://www.iaaf.org/medical/manual/index.html>. More specifically, chapter 15. Drugs in Sports/Doping Control. Accessed on Aug. 23, 2014.

14 Details of collection, analysis and performance management procedures can be found at: http://www.iaaf.org/mm/Document/Antidoping/Rules&Regulations/05/26/52/20100521100952_httpostedfile_IAAF_006G_REV1-IAAFBloodTestingProtocol_20413.pdf. Accessed on: Aug. 23, 2014.

15 According to the CBAt website, "Out-of-competition controls are crucial to the fight against voluntary doping in athletics. The World Anti-Doping Agency – WADA, as well as the IAAF determine the adoption of programs for out-of-competition doping control, including Groups of Athletes Registered for Testing. To make this possible, they should keep a record at each entity they inform, every four months, where they can be located, i.e., their places of training and competition, when they are in their places of residence or not. Every precaution should be taken by athletes to keep such records updated". Available at: http://www.cbaf.org.br/anad/fora_competicao/default.asp. Accessed on: 1 out. 2012.

16 Three Brazilian athletes now participate in the IAAF program: Caio Bonfim (race walking), Jonathan Silva (triple jump) and Fabiana Murer (pole vault). Available at: <http://www.iaaf.org/about-iaaf/documents/anti-doping>, updated on: Jan. 9, 2013. Accessed on: 14 jan. 2013.

17 *Rules IAAF*, 2012/2013, p. 57. Available at: <http://www.iaaf.org/about-iaaf/documents/anti-doping>, updated on Oct. 24, 2012. Accessed on Nov. 10, 2012.

18 *Rules IAAF*, 2012/2013, p. 57. Available at: <http://www.iaaf.org/about-iaaf/documents/anti-doping>, updated on October 24, 2012. The website also includes a list of all athletes tested for doping since 2003, with test date, name, place and result. Available at: http://www.cbaf.org.br/anad/atletas_testados/atletas_quadro.asp?ano=2011. Accessed on Nov. 10, 2012.

societies “[...] we no longer face the mass-individual pair; individuals have become ‘dividual’, divisible, and masses became samples, data, markets or ‘banks’” He adds: “[...] the numerical language of control is made of codes that mark access to information, or rejection” (DELEUZE, 1992b, p. 222).

In this context, the set of discourses (interviews, articles, etc.) from WADA, which constitute “[...] regions of visibilities and fields of readabilities, contents and expressions” (DELEUZE, 1988, p. 7) indicate that the institution is aware of innovations coming from technoscience that enable it to monitor and control new doping strategies through new anti-doping control programs, such as the Athlete Biological Passport. The discursive corpus analyzed also showed that, in the Biological Passport, blood became the novelty and the main component of anti-doping control strategies.

In addition, doping control tests, exams and investigations are no longer restricted to competitions. In the wake of the principles of control societies, anti-doping inspections were extended to athletes’ training sessions, homes and other spaces of their private lives. Mapping, registering, interconnecting, building databases with as much information as possible on athletes, whether they are suspects or not, are some of the actions in the Biological Passport Program. As noted by Moraes and Veiga-Neto (2008), in control societies “[...] there is hyper-interactivity with computers and databases”. Thus, through electronic-digital networks, “digital information is exchanged and distributed in increasing volumes, completely independent from places and cultures” (MORAES, VEIGA-NETO, 2008, p. 8).

The analysis we conducted on the series of WADA discourses regarding the Athlete Biological Passport Program showed us that, similarly to what we see in other institutional spaces such as School Education (MORAES, VEIGA-NETO, 2008), in the field of high performance sports we are also probably leaving behind the disciplinary society to enter control societies as pointed by Gilles Deleuze (1992). As Foucault himself signaled, that change should occur, since “there are more and more categories of people who are not subject to discipline”, which shows that “[...] in the future we should separate ourselves from today’s discipline society” (FOUCAULT, 2006b, p. 268).

However, similarly to what happened in disciplinary societies, also in control societies “[...] governments control citizens; and citizens control themselves” (COSTA, 2004, p. 164). Thus, specific actions such as the Athlete Biological Passport, which is a specific effect of control society in the high performance sports field, are part of the logic of “governmentality” (FOUCAULT, 2006) – a government form guided by transnational biopolitics interested in controlling life and populations. In governmentality, the population appears as the government’s interest, purpose and instrument, “[...] aware before the government of what they want and also unaware of what is to be done to them” (FOUCAULT, 2006a, p. 300).¹⁹

5 FINAL REMARKS

The discovery of the DNA structure, which allows transferring hereditary characters, in the second half of the twentieth century, brought about a revolution in biology, changing its focus towards genetic information. That change, driven by information technology, enabled the

¹⁹ For more information on the concept of “governmentality”, see Michel Foucault’s article “A ‘Governamentalidade’” (2006a) and: (FOUCAULT, 2008a; 2008b).

discovery of the sequencing of the human genome. Based on that new approach to biology, the understanding of human beings changes again. In scientific discourse, human beings are identified by information contained in their bodies, whether biometric or genetic.

These new knowledges contributed for life sciences²⁰ to reach a new level after the discovery of serial DNA, “instead of ‘gene’, which became increasingly vague. Biologists now speak of ‘genome’, which include the whole molecular material contained in the chromosome pairs of a particular organism and transmitted from generation to generation” (KECK; RABINOW, 2008, p. 86).

Frédéric Keck and Paul Rabinow also point out that in 2001, “[...] British foundation Wellcome Trust and biotechnology company Celera Genomics announced the first complete map of the human genome” (KECK; RABINOW, 2008, p. 88). This new biotechnology reality opened possibilities for new interventions and applications for that knowledge in high performance sport, even extending them to new doping/anti-doping practices.

With the advent of new techniques for genetic doping²¹ and the introduction of DNA as a substrate for anti-doping controls, we assume that anti-doping control techniques will continue to change. The ways in which doping, genetic changes and other medical interventions redefine the character of the body have forced WADA to conduct new research and analyses. However, that demands new funding. Therefore, WADA invests around 5 million euros per year in research on anti-doping tests for still undetectable substances (such as human growth hormone – GH), an effort to develop increasingly innovative detection methods and expand the list of prohibited substances. In addition, more than five million euros are used for studies on genetic doping.

In this article, we analyzed how official anti-doping discourses, strategies and policies are interested in controlling the universe of performance sports, overseeing and governing athletes’ bodies and lives. However, we have never ruled out the possibility that many athletes produce forms of resistance, which can circumvent, dodge, escape and resist the interests present in WADA’s programs, codes and rules.

In the field of Brazilian Physical Education, there is a significant number of studies addressing issues related to biopower, biopolitics and governmentality, such as Palma, *et al.* (2012); Rigo and Santolin (2012); and Fraga, (2006). However, most of those studies focus on the body and/or health. There are also some works, such as Damico (2013), dealing with public policy of sport and leisure for youth. However, studies on performance sport and control societies are much rarer. Therefore, we believe that further research into that theoretical perspective would be important, for example, studies analyzing resistance to WADA’s strategies and policies. Those discursive and non-discursive sports practices enhance life (PELBART, 2003), oppose strategies of submission of athletes, and are routes to escape from the logic of control societies, particularly in its action on the sports field.

20 For a synthesis of the history of life sciences, their configuration and their rupture and reconfiguration movements, see PORTOCARRERO (2009).

21 Genetic doping is the non-therapeutic use of cells, genes and gene elements that come to improve an athlete’s physical performance through gene therapy. Available at: http://www.wada-ama.org/Documents/World_Anti-Doping_Program/WADP-Prohibited-list/WADA_Prohibited_List_2013_EN.pdf. Accessed on: Aug. 23, 2014.

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