#### RESPONSE TO THE CONSTITUTIONAL COURT OF THE REPUBLIC OF COLOMBIA

**Reference:** File T-10.453.467

**By** Drisha Fernandes D.¹ in association with Dr. Lynda F. Blade² on behalf of the International Consortium for Women's Sport (ICFS)

Attention: Magistrate Cristina Pardo Schlesinger

Greetings to Judge Cristina Pardo Schlesinger and other judges of the Constitutional Court of the Republic of Colombia:

Pursuant to order number seven of the reference file T-10.453.467, my colleagues and I submit a response to your request for intervention.

This case concerns the complaint of "Adriana", a volleyball player born male who identifies herself as a "woman" and who has filed a legal complaint against VEA (Volleyball League of Antioquia, Colombia) for alleged violation of "the fundamental rights to human dignity, equality, non-discrimination on the basis of sex and gender identity, free development of personality, freedom of conscience and sport".

This reference file contains an exceptionally thorough series of orders and invitations issued by Justice Schlesinger in which she seeks answers to important questions that will help the Constitutional Court determine whether women's sports in Colombia should be required to include male athletes as fellow competitors.

We appreciate the opportunity to participate as women committed to women's human rights, in cases that concern women, something that does not always happen. Due to the importance of the topic, we have prepared a concept that includes many of the technical questions asked to other people and organizations, in addition to the one posed by the magistrate.

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<sup>&</sup>lt;sup>2</sup> Linda Blade, PhD in Kinesiology (1994), was a Canadian champion (1986) athletics and sports performance coach who has coached hundreds of athletes in seven countries, ages 5 to 70, from beginner to elite, in over 15 different sports. As president of Athletics Alberta (2014-2023), she established gender-based eligibility guidelines. In 2021, Linda collaborated with Canadian journalist Barbara Kay (2021) to write the book *UNSPORTING: How Trans activism and Science Denial are Destroying Sport.* She also contributed a chapter on sports to WDI's 2023 book, *Women's Rights Gender Wrongs.* As a founding member of the International Consortium on Women's Sport (ICFS) https://www.icfsport.org/about, created in January 2023, Linda is committed to ongoing advocacy that focuses on safety and equality for female athletes around the world

Our responses to your concerns are divided into three sections: a. On sex differences in sports based on scientific sources, b. On language used under international human rights law, and c. On impacts on women's rights.

#### A. What are the differences between the sexes in sports?

#### 1. On the genetic and biological origins of sex - Is sex binary?

Yes, sex is binary. Sex is defined by the <u>type of gametes</u> that the entire morphological structure of an organism is designed to produce. In humans there are only two types of gametes: eggs and sperm. Therefore, there are only two types of body designs, each clearly organized around the physiology and morphology necessary to produce the specific type of gametes:

- Egg production requires the female "body design" or "morphology".
- Sperm production requires male morphology.

This binary system makes the human sex binary, giving rise to what is called "sexual dimorphism" (meaning "two designs")<sup>3</sup>.

Sex is predetermined from conception, as the male and female reproductive systems develop in the uterus very early in gestation (6-9 weeks) and, at the time of birth, the infant is observed to be either male or female.

Although biological sex at birth is identified visually due to the presence of sex organs (males have a penis and females have a vagina), it is also true that each of the 30+ trillion cells in the body has the karyotype (chromosomes) that clearly pertains to that sex: males have XY karyotype with the Y chromosome with an active SRY gene encoding male characteristics and females have XX karyotype without an active SRY gene.

The male body produces much more testosterone than the female body from eight weeks of gestation onwards. It is also true that the male body is more sensitive to testosterone and there are hundreds of cellular, anatomical and physiological variables that develop distinctive

<sup>&</sup>lt;sup>3</sup> For a simple explanation see video Why Sex is Binary by Zachary Elliott of the Paradox Institute: https://youtu.be/XN2-YEgUMg0?si=E1ATNONDDfKPvaFd. This video is based on the following sources: [1] Kumar et al. (2019). Anisogamy. Encyclopedia of Animal Cognition and Behavior [2] Lehtonen, J., Parker, G. (2014). Gamete competition, gamete limitation, and the evolution of two sexes. Molecular Human Reproduction, 20(12). [3] Cox, P., Togashi, T. (2011). The Evolution of Anisogamy, A Fundamental Phenomenon Underlying Sexual Selection. New York Cambridge University Press. 17. [4] Czaran, T., Hoekstra, R. (2004). Evolution of sexual asymmetry. BMC Evolutionary Biology, 4(34). [5] Kodric-Brown et al. (1987). Anisogamy, sexual selection, and the evolution and maintenance of sex. Evolutionary Ecology, 1, 95-105. [6] Sax, L. (2002). How common is intersex? A response to Anne Fausto-Sterling. [7] Wright, C. & Hilton, E. (2020). The Dangerous Denial of Sex. Wall Street Journal. [8] Jones, R., Lopez, K. (2014). Chapter 5: Sexual differentiation. Human Reproductive Biology, 4th edition. Elsevier. 95. [9] Sekido, R., Lovell-Badge, R. (2009) Sex determination and SRY, Down to a wink and a nudge. Trends in Genetics, 25(1). [10] Kashimada, K., Koopman, P. (2010). Sry, the master switch in mammalian sex determination. Development, 137. [11] Kimball, J. (2020). Sex chromosomes. LibreText.org. [12] Gilbert, SF. (2000). Chromosomal sex determination in mammals. Developmental Biology, 6th edition. Sunderland (MA), Sinauer Associates. [13] Wizemann, TM, Pardue ML, editors (2001). Sex begins in the womb. Exploring the biological contributions to human health: Does sex matter? US Institute of Medicine. [14] Carlson, B. (2014). Chapter 16, Urogenital System. Human Embryology and Developmental Biology. 404-407. [15] Witchel, S. (2017). Disorders of sex development. Best Practice and Research in Clinical Obstetrics and Gynaecology, 48, 90-102. [16] Heying, H. (2019) Boundaries in biology are fuzzy, but gametes aren't. Twitter. [https://twitter.com/HeatherEHeying/st....] [17] Graham, C. (2019). Is sex a spectrum? Sex determination and differentiation. MRKHVoice. [18] Bachtrog, D., et al. (2014). Sex determination, Why so many ways of doing it. PLOS Biology, 12(7).

male traits due to male sensitivity to testosterone and other types of androgens. Thus, in early childhood, the male body exhibits distinct structural differences from the female body, as a whole. Sex differences are much more complex than the simple presence or absence of a particular hormone. The entire body changes over time because of the way testosterone interacts with the cells of the male body, which are genetically primed to respond differently than how the female body develops.

Subsequently, sexual dimorphism cannot be undone by eliminating or reducing circulating testosterone. The changes are irreversible, just as you cannot undo an egg once it is cooked. The changes are lifelong. Therefore, it is impossible to actually "change sex"<sup>4</sup>. This would require a complete restructuring of every one of the more than 30 trillion cells in the body, along with the resulting anatomical structures that have already developed. There is no way to transform the karyotype of each cell from XY to XX, just as it is impossible to shorten the length of arms and/or legs, shrink the heart and/or lungs, realign the angles of muscles at their attachment to bones, or rewire brain cells to react differently to visual cues, to give a few examples that affect sports. In all of human history, no person has ever had a "sex change".

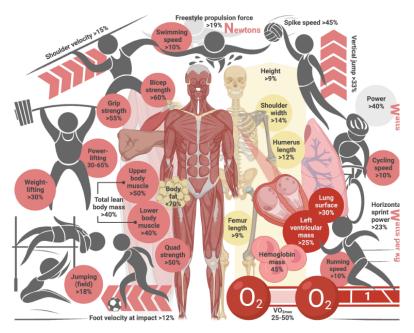
# 2. On sexual dimorphism in sport - Do male-born athletes have a clear competitive advantage over female-born athletes? What does the data from fitness testing and sports performance monitoring tell us?

Undoubtedly, male athletes enjoy competitive advantages over female athletes because of the way in which anatomical and physiological differences influence performance differences.

Males have greater lean mass, less fat, more muscle mass, greater strength, longer bones, narrower pelvis, stronger tendons, larger lungs with greater lung capacity and greater cardiovascular performance. These are biological differences of substance, and it is worth

<sup>&</sup>lt;sup>4</sup> For a simple explanation see Can humans change sex? by Zachary Elliott of the Paradox Institute: https://youtu.be/s-Q\_IB9K0oo?si=86\_8RxHLw19X73Re based on the following sources: (1) Aztekin, C., Storer, M. (2022). To regenerate or not to regenerate: Vertebrate model organisms of regeneration-competency and -incompetency. Wound Repair Regen, 30(6), 623-635. (2) Baldassarre, M., et al. (2013). Effects of long-term high dose testosterone administration on vaginal epithelium structure and estrogen receptor-a and -b expression of young women. International Journal of Impotence Research, 25, 172-177. (3) Casas, L, Rey-Saborido, F., Ryu, T., et al. (2016). Sex change in clownfish: molecular insights from transcriptome analysis. Scientific Reports, 6. (4) Cheng, P.J., Pastuszak, A.W., Myers, J.B., Goodwin, I.A. & Hotaling, J.M. (2019). Fertility concerns of the transgender patient. Transl Androl Urol, 8(3): 209-218. (5) Goymann, W., Brumm, H., Kappeler, P. (2022). Biological sex is binary, even though there is a rainbow of sex roles. BioEssays, 45(3). (6) Holub, A., Shackelford, T. (2021). Gonochorism. Encyclopedia of Animal Cognition and Behavior. Springer. (7) Khoo, LM., et al. (2018). Growth pattern, diet, and reproductive biology of the clownfish Amphiprion ocellaris in waters of Pulau Tioman, Malaysia. The Egyptian Journal of Aquatic Research, 44(3), 233-239. (8) Leavy, M., Trottmann, M., Liedl, B., et al. (2017). Effects of Elevated β-Estradiol Levels on the Functional Morphology of the Testis - New Insights. Scientific Reports, 7. (9) Lehtonen, J., Parker, G. (2014). Gamete competition, gamete limitation, and the evolution of two sexes. Molecular Human Reproduction, 20(12). (10) Muyle, A., et al. (2021). Dioecy is associated with high genetic diversity and adaptation rates in the plant genus Silene. Molecular Biology and Evolution, 38(3), 805-818. (11) Nagahama, Y., et al. (2021). Sex determination, gonadal sex differentiation, and plasticity in vertebrate species. Physiological Reviews, 101(3), 1237-1308. (12) Pla, S., Benyenuto, C., Capellini, I., et al. (2022), Switches, stability, and reversals in the evolutionary history of sexual systems in fish, Nature Communications, 13, (13) Rev. R., Josso, N., Racine, C. (2020), Sexual differentiation, In: Endotext, South Dartmouth, MDText, Inc. (14) Scharer, L. (2017). The varied ways of being male and female. Molecular Reproduction & Development, 84. (15) Schneider, F., Kliesch, S., Schlatt, S., et al. (2017). Andrology of male-to-female transsexuals: influence of cross-sex hormone therapy on testicular function. Andrology, 5(5).

clarifying that women do not equal to smaller, less muscular men. There is abundant literature demonstrating this<sup>5</sup>.



 ${\tt FIGURE\ 1} \quad {\tt Physiological\ differences\ and\ resultant\ performance\ implications\ in\ males\ and\ females.\ Males\ are\ bigger\ and\ stronger,}$ have higher lean mass and lower fat mass, have a differently shaped skeleton, and have higher aerobic capacity than females, generating a 10%-65% performance advantage for different attributes across athletic sports. <sup>23-25,27-40</sup> VO<sub>2mass</sub> maximal oxygen consumption. Created with

In fact, while some women may be taller or faster than some men, there will be none taller or faster than the tallest or fastest man. The fastest woman might be on a par with the slowest man at a professional level. Thus, the women with the best athletic performance would be ranked in the average of the men, and their chance of winning medals would inexistent if they were to compete against them.

Male development such great generates performance advantages that sport requires separate category

exclude the attributes that result from normal male development resulting in a predominance of activities involving power, strength, speed, and endurance<sup>6</sup>.

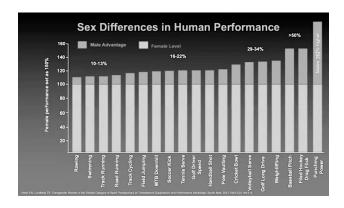
<sup>5</sup> (1) Hilton, E., Lundberg, T. (2020). Transgender women in the female category of sport--Perspectives on testosterone

suppression and performance advantage. Sports Medicine.(2) Lee DH, Keum N, Hu FB et al. (2017). Development and

validation of anthropometric prediction equations for lean body mass, fat mass and percentage fat in adults using the National Health and Nutrition Examination Survey (NHANES) 1999-2006. Br J Nutr., 118(10):858-866. (3) Janssen I, Heymsfield SB, Wang ZM, Ross R. (2000). Skeletal muscle mass and distribution in 468 men and women aged 18-88 yr. I Appl Physiol. 89(1):81-88. (4) Bohannon RW, Wang YC, Yen SC, Grogan KA. (2019). Hand grip strength: A comparison of values obtained from the NHANES and NIH Toolbox studies. Am J Occup Ther. 73(2). (5) Neder JA, Nery LE, Shinzato GT, Andrade MS, Peres C, Silva AC. (1999). Reference values for concentric knee isokinetic strength and power in nonathletic men and women from 20 to 80 years old. J Orthop Sports Phys Ther. 29(2):116-126. (6) Jantz LM, Jantz RL. (1999). Secular change in long bone length and proportion in the United States, 1800-1970. Am J Phys Anthropol. 110(1):57-67. (7) Lepley AS, Joseph MF, Daigle NR et al. (2018). Sex differences in Achilles tendon mechanical properties: longitudinal response to repetitive load exercise. J Strength Cond Res. 32(11):3070-3079. (8) Pate RR, Kriska A. (1984). Physiological Basis of the Sex Difference in Cardiorespiratory Endurance. Sport Med An Int J Appl Med Sci Sport Exerc. 1(2):87-89. (9) Best SA, Okada Y, Galbreath MM et al. (2014). Age and sex differences in muscle sympathetic nerve activity in relation to haemodynamics, blood volume and left ventricular size. Exp Physiol. 99(6):839-848. (10) Tong E, Murphy WG, Kinsella A et al. (2010). Capillary and venous haemoglobin levels in blood donors: a 42-month study of 36 258 paired samples. Vox Sang. 98(4):547-553.

<sup>&</sup>lt;sup>6</sup> Taken from: Lundberg T.R., Tucker R., Hilton E et al. (2024). The International Olympic Committee framework on fairness, inclusion and nondiscrimination on the basis of gender identity and sex variations does not protect fairness for female athletes, in: Scandinavian Journal of Medicine & Science In Sports No. 34, John Wiley & Sons Ltd. The additional data on boxing power is taken from Morris J. et al, (2020) Sexual dimorphism in human arm power and force: implications for sexual selection on fighting ability.

The advantage of males over females varies by sport or activity, as summarized in the diagram below<sup>7</sup>. Although boys have been found to have an advantage over girls from childhood, it is at puberty when testosterone impacts their growth and development radically, reducing the overlap in performance dramatically. Additionally, women worry about when they will compete in the face of their menstruation, and how it may impact fat use and carbohydrate discharge, inhibiting their performance. This concern, which men do not have, is in itself a disadvantage<sup>8</sup>.



On the other hand, there are DSD variations or Variations in Sexual Development, also referred to as Intersex persons. This term is used to refer to the various congenital medical conditions of the reproductive system that affect males and females. As with any other medical conditions, there are males who have intersex conditions and females who have intersex conditions. Each intersex condition is unique and therefore requires a specific

medical treatment for each case. Despite this uniqueness, what intersex people have in common is that their innate sex characteristics differ from medical norms.

Individuals with DSD may have rare chromosomal variations, such as X (instead of XX) or XXY (instead of XY); they may have rare variations in genital morphology (such as congenital adrenal hyperplasia in XX females, in which overexposure to androgens causes virilization or masculinization of the genitalia; may have differences in hormone production (such as complete androgen insensitivity syndrome, in which XY fetuses lack functional androgen receptors and develop a female phenotype); and may have extremely rare differences in gonadal tissue (such as ovotesticular disorder, in which complex genetic and hormonal abnormalities produce a mixture of ovarian and testicular tissue). Because each condition is so unique, its biology must be treated on a case-by-case basis<sup>9</sup>.

<sup>7</sup> Taken from: Hilton, E.N., Lundberg, T.R. Transgender Women in the Female Category of Sport: Perspectives on Testosterone Suppression and Performance Advantage. Sports Med 51, 199-214 (2021).

https://doi.org/10.1007/s40279-020-01389-3. https://doi.org/10.1007/s40279-020-01389-3

<sup>&</sup>lt;sup>8</sup> See Dr. Greg Brown's lecture: *Males and females are different, and that matters in sports!* https://www.youtube.com/watch?v=v8LZaOICIMY

<sup>&</sup>lt;sup>9</sup> For a simple explanation see *Biology of DSDs: Introduction* by Zachary Elliott of the Paradox Institute: https:based on the following sources: [1] Wilson, G. (2013). Third sex redux. Intersex Human Rights Australia. [2] Witchel, S. (2017). Disorders of sex development. Best Practice and Research in Clinical Obstetrics and Gynaecology, 48, 90-102. [3] DSDFamilies. (2020). Brief overview of differences in sex development. dsdfamilies.org. dsdfamilies.org. [4] DSDFamilies. (2019). The Story of Sex Development. dsdfamilies.org. [5] Sex. (n.d.) Merriam-Webster; Lehtonen, J., Parker, G. (2014). Gamete competition, gamete limitation, and the evolution of two sexes. Molecular Human Reproduction, 20(12); Cox, P., Togashi, T. (2011). The Evolution of Anisogamy, A Fundamental Phenomenon Underlying Sexual Selection. New York Cambridge University Press. 17.[6] IHRA.(2014). Welcome! Intersex Human Rights Australia. [7] Sax, L. (2002). How common is intersex? A response to Anne Fausto-Sterling. Journal of Sex Research. [8] Vilain, E. (2016). Ovotesticular disorder of sex development. Rare Diseases. [9] ClareCAIS. (2020). Caught in the middle. Differently Normal. [10] Intersexfacts (2020). Getting to grips with our sex is complicated. Twitter. [11] Graham, C. (2019). Statistics and Semantics, Is Intersex As Common as Redheads. MRKHVoice. [12] Lundberg, T., et al. (2017). Making sense of Intersex and DSD how laypeople understand and use terminology.

What is important about these variations is that even in complex cases, the sex of these individuals can be determined by a combination of genetic, hormonal and morphological markers that define them as male or female. Binary sex in humans remains even in these unique medical situations.

# 3. On possible methods to eliminate the male advantage - Is there research showing that there are hormonal and/or surgical treatments that would completely eliminate the male advantage of an athlete born male?

To date there have been at least seventeen studies demonstrating that neither hormone therapy nor surgery completely eliminates the male over female advantage in sport<sup>10</sup>. Given the innate male advantage, men who self-identify as "transgender women" always improve their relative ranking when they enter female category competitions. The website SHE WON<sup>11</sup>, lists the number of medals lost by women to men self-identifying as women. To date, 766 female athletes are recorded, in 529 competitions and 40 sports, who have lost a total of 1088 medals, or records, or scholarships and other opportunities. Coincidentally, the most recent is Colombian golfer Maria Bohorquez, who loses a First Place and probable Epson Tour Card to Hailey Davidson<sup>12</sup>.

In fact, when women who self-identify as "transgender men" compete in male sports, issues of equality and safety for other participants are absent, as they have no biological advantage. Although testosterone administration might improve physical ability in "transgender men" ,44,45 it does not completely "overcome" the physiological and morphological differences caused by endogenous testosterone during early development and puberty. Recognition of this asymmetry in the performance of "transgender females" (males) and "transgender males" (females) in sport may therefore lead to a better understanding of the significant and lasting influences of sex-specific developmental factors<sup>13</sup>.

<sup>&</sup>lt;sup>10</sup> Longitudinal studies: (1) Gooren LJG, Bunck MCM (2004). Transsexuals and competitive sports. Eur J Endocrinol. 151(4):425-9. (2) Araldsen IR, Haug E, Falch J, Egeland T, Opjordsmoen S. (2007). Cross-sex pattern of bone mineral density in early onset gender identity disorder. Horm Behav. 52(3):334-343. (3) Mueller A, Zollver H, Kronawitter D et al. (2011). Body composition and bone mineral density in male-to-female transsexuals during cross-sex hormone therapy using gonadotropin-releasing hormone agonist. Exp Clin Endocrinol Diabetes. 119(2):95-100. (4) Wierckx K, Van Caenegem E, Schreiner T et al. (2014). Cross-sex hormone therapy in trans persons is safe and effective at short-time follow-up: results from the European network for the investigation of gender incongruence. J Sex Med. 11(8):1999-2011. (5) Van Caenegem E, Wierckx K, Taes Y et al. (2015). Preservation of volumetric bone density and geometry in trans women during cross-sex hormonal therapy: a prospective observational study. Osteoporos Int. 26(1):35-47. (6) Gava G, Cerpolini S, Martelli V, Battista G, Seracchioli R, Meriggiola MC (2016). Cyproterone acetate vs leuprolide acetate in combination with transdermal oestradiol in transwomen: a comparison of safety and effectiveness. Clin Endocrinol (Oxf). 85(2):239-246. (7) Auer MK, Ebert T, Pietzner M et al. (2018). Effects of sex hormone treatment on metabolic syndrome in transgender individuals: focus on Metabolic Cytokines. J Clin Endocrinol Metab. 103(2):790-802. (8) Klaver M, De Blok CJM, Wiepjes CM et al. (2018). Changes in regional body fat, lean body mass and body shape in trans people using crosssex hormone therapy: results from a prospective multicenter study. Eur J Endocrinol. 178(2):163-171. (9) Fighera TM, da Silva E, Lindenau IDR, Spritzer PM. (2018). Impact of cross-sex hormone therapy on bone mineral density and body composition in trans women. Clin Endocrinol (Oxf). 88(6):856-862.(10) Scharff M, Wiepjes CM, Klaver M, Schreiner T, T'Sjoen G, Heijer M Den. (2019). Change in grip strength in trans individuals and its association with lean body mass and bone density. Endocr Connect. 8(7):1020-1028. (11) Wiik A, Lundberg TR, Rullman E et al. (2020). Muscle Strength, Size, and Composition Following 12 Months of Gender-affirming Treatment in Transgender Individuals. J Clin Endocrinol Metab. 105(3):247.

<sup>11</sup> See https://www.shewon.org/

<sup>&</sup>lt;sup>12</sup> See <a href="https://archive.is/4YQpY">https://archive.is/4YQpY</a>

<sup>&</sup>lt;sup>13</sup> Lundberg T.L. et al, "The International Olympic Committee framework" (n 4).

On the other hand, it is rare for female athletes who identify as "transgender men" to fight to be accepted on male teams, common sense leads them to continue to participate on female teams and not to use testosterone during their performance as an athlete. They do not expect men to perform less or run less or hit less hard in order to be athletes.

It is pertinent to ask whether there is any way to completely erase the male advantage with medical intervention. In one study the 15-31% athletic advantage shown by "trans women" [men who identify as women] over women before they started taking gender-affirming hormones diminished with feminizing therapy. However, they were still running 9% faster after the one-year testosterone suppression period recommended by the World Athletics Association for participation in women's events<sup>14</sup>.

In another study, data show that strength, lean body mass, muscle size and bone density are only trivially affected by hormone treatment<sup>15</sup>. The observed reductions in muscle mass, size and strength are very small compared to baseline differences between men and women in these variables and therefore have important implications for performance and safety in sports where these attributes are important for competition.

Critics of such studies point out that the subjects who participated in them were untrained individuals, not athletes. But it stands to reason, that males who are in training would have performances that diminished even less than the those shown in this study, since male physiology responds to exercise in more extreme (positive) ways than what happens with training inputs to female bodies. In other words, had the subjects been athletes in training, the reduction in male advantage would have been even less than the ones documented in these studies.

## 4. On the IOC's position - What is the IOC's current policy on "inclusiveness" and how has the IOC arrived at this position?

The International Olympic Committee has had an ill-advised sequence of decisions over the past 25 years. Since 1999, when verification of female gender through a simple non-invasive cheek swab was abandoned, the IOC has undertaken a series of policy changes<sup>16</sup> that have made Olympic competitions increasingly problematic for female athletes. At no point in this progression of decisions has the IOC adequately consulted women, despite the fact that they are the only athletes adversely affected by its decisions.

In 2003 the *Stockholm Consensus* opened the door to male transsexuals who had undergone genital surgery, on the frivolous assumption that there would be so few castrated males that it would be no problem to include them in the female category. IOC expert Dr. Louis Gooren stated, "Depending on the levels of arbitrariness one wants to accept, it is justifiable that

<sup>&</sup>lt;sup>14</sup> Roberts, T.A., Smalley, J., Ahrendt, D. (2020). Effect of gender affirming hormones on athletic performance in transwomen and transmen: implications for sporting organisations and legislators. British Journal of Sports Medicine. Vol. 55; Issue 11. https://bism.bmi.com/content/55/11/577.full?iikev=vilCzZVZFRDZzHz&kevtvpe=ref

<sup>&</sup>lt;sup>15</sup> Wiik Anna, et al, (2020) Muscle Strength, Size, and Composition Following 12 Months of Gender-affirming Treatment in Transgender Individuals, The Journal of Clinical Endocrinology & Metabolism, Volume 105, Issue 3, Pages e805-e813. <sup>16</sup> Blade L, (2024), The Dystopian History of Sex Testing in Women's Sports. How the International Olympic Committee (IOC) failed women by undermining sex-based eligibility in sports. <a href="https://www.">https://www.</a>

reassigned males can compete with other females"17. It was an illogical, unscientific and completely arbitrary decision made by the IOC, driven by the demands of a miniscule sector of society and not by science or common sense.

But this policy was not enough for men who wanted to bypass the surgical requirement. So, focusing exclusively on the needs and desires of men, the IOC came up with the 2015 *Transgender Consensus*<sup>18</sup>, whereby a man only had to self-identify as a woman, "live as a woman" for a year and reduce his testosterone to a level many times higher than that allowed for female athletes, in order to compete in the women's category.

As expected in Tokyo 2020, Laurel Hubbard appeared and embarrassed the IOC by displacing female athletes of worth in women's weightlifting such as 18-year-old Roviel Detenamo from the island of Nauru<sup>19</sup>, who was excluded from competing so that he could be included. Hubbard created such a media distraction that the IOC decided that the way to resolve the situation would be to further modify the women's eligibility policy, conducting a rapid consultation with activist "stakeholders" in late summer 2021, but not allowing women with opposing views to attend. Athletes who requested women's participation in the consultation received the response that the consultations were already closed.

What emerged from that round of consultation was *The IOC Framework on Equity, Inclusion and Non-Discrimination on the Grounds of Gender Identity and Sexual Variance*<sup>20</sup>, dated November 2021. This document put forward a new principle that placed the burden of proof related to integrity, unfairness, or insecurity on female athletes who were in competition with self-declared female athletes. They were to accept the *non-presumption of competitive advantage: No athlete should be prevented from competing or excluded from competition solely on the basis of an unverified, presumed or perceived unfair competitive advantage due to variations in sex, physical appearance and/or transgender status.* 

By the time of the Paris 2024 Olympic Games, two male boxers had already snatched medals from women. Reduxx magazine exposed the leak of an Algerian medical report mentioning that Imane Khelif has XY chromosomes and testicles<sup>21</sup>, was born male and developed enhanced advantages in athletic performance by experiencing normal male puberty. This is a variation of the Sex Development Differences explained in question 2. As reported by the Telegraph newspaper the medical test has been verified by officials of the International Boxing Association (IBA), and they further state that Taiwanese Olympic boxer Lin Yu-ting, was similarly diagnosed and allowed to box in the women's category at Paris 2024<sup>22</sup>.

The punch power advantage in boxing of a males over a females is 162%; this is the most extreme disparity of all the sex-based biomotor inequalities that can be found in sport<sup>23</sup>. This difference in power between male and female opponents in the same weight class is, in fact,

<sup>&</sup>lt;sup>17</sup> LJG Gooren, MCM Bunck, Transsexuals and competitive sports, *European Journal of Endocrinology*, Volume 151, Issue 4, Oct 2004, Pages 425-429, https://doi.org/10.1530/eje.0.1510425

<sup>&</sup>lt;sup>18</sup> See https://stillmed.olympic.org/Docume

<sup>&</sup>lt;sup>19</sup> See https://www.theguardian.com/sport/2021/aug/02/laure

<sup>&</sup>lt;sup>20</sup> See https://stillmed.olympics.com/me

<sup>&</sup>lt;sup>21</sup> https://reduxx.info/algerian-boxer-imane-khelif-has-xy-chromosomes-and-testicles-french-algerian-medical-report-admits/

 $<sup>^{22}\,</sup>https://www.telegraph.co.uk/boxing/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-iba-chief/2024/11/06/imane-khelif-gender-eligibility-test-failure-eligibility-test-failure-eligibility-test-failure-eligibility-test-failure-eligibility-test-failure-eligibility-test-failure-eligibility-test-failure-eligibility-test-failure-eligibility-eligibility-eligibility-eligibility-eligibil$ 

 $<sup>^{23}</sup>$  Morris J. et al, (2020) Sexual dimorphism in human arm power and force: implications for sexual selection on fighting ability

much greater than the difference in punching power between heavyweight and lightweight boxers within the male category. Therefore, it is not surprising that both Imane Khelif and Lin Yu-ting took home women's gold medals in their respective weight classes, exposing Olympic female boxers to extreme risk of injury and, of course, unfairly losing podium places. We saw female contenders withdraw from the ring, out of the sheer sense of survival, in the face of the punching power of these two competitors, who the IBA itself had banned from competing with women.

Unfortunately, this sequence of decisions violates the Olympic Charter<sup>24</sup> whose "Fundamental Principles of Olympism" state that athletes have the right to participate in Olympic sports without discrimination based on sex, to safety and to equality, among others. The truth is that the trend among sport governing bodies is to move away from the IOC and adopt a position based on evidence of the existence of sexual dimorphism.

In a recent article, 26 professionals and researchers from various Departments of Medicine and Public Health, Physical Education and Sport Sciences, Biological and Social Sciences, present arguments to demonstrate that the IOC policy does not protect equality and fairness for female athletes, because it does not exclude the advantage of male development based only on the random reduction of testosterone levels. They consider that testing men who identify as transgender women on a case-by-case basis may lead to stigmatization and difficulty of management in practice, since, among others, it would force blocking peaks in training to ensure that they are not "too fast or strong for competition". This scenario creates a disincentive to train and puts athletes at odds with the aspirational motto of the Olympic Games which is "Faster, Higher, Stronger". In addition, they believe that female athletes already experience significant barriers to participation in sport, and it represents a real injustice. It is female athletes who should be consulted by the IOC, implementing a system to listen to their voices, recognize and value them<sup>25</sup>.

# 5. On divergence from the IOC position by some sports federations - Do all international sports federations follow the IOC policy on "inclusiveness"?

The answer is no. An increasing number of sports federations are establishing eligibility policies that run completely counter to the current IOC framework. In several cases, world sports federations have policies that offer partial mitigation. What follows is a list of international policies<sup>26</sup> to date.

The International Chess Federation, the International Mixed Martial Arts Federation, the International Rugby League, the World Boxing Council, the International Cricket Council, do not allow men to participate in women's categories. Of significance is World Rugby's 2020 review which states that adding a single male to the field increases the chances of female players suffering serious head, neck and back injuries by 30%<sup>27</sup>.

There are other differential policies, and in some cases the possibility of creating a separate category is being explored:

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<sup>&</sup>lt;sup>24</sup> https://stillmed.olympics.com/media/Documents/International-Olympic-Committee/IOC-Publications/EN-Olympic-Charter.ndf

<sup>&</sup>lt;sup>25</sup> Lundberg T.L. et al, "The International Olympic Committee framework" (n 4).

<sup>&</sup>lt;sup>26</sup> You can find them here: https://womenssportspolicy.org/female-fairness/

<sup>&</sup>lt;sup>27</sup> See https://resource

<u>World Archery</u> - Men with partial mitigation of advantage [T<2.5 nmol/L for 24 months] are allowed.

<u>World Athletics</u> - No males allowed in women's international competitions; except DSD XY must mitigate [T<2.5 nmol/L for 24 months].

<u>International Cycling Union (UCI)</u> - Adult males are not allowed to compete in women's international competitions unless they have made the transition before the age of 12.

<u>Ladies Pro Golf Association</u> - Males are not allowed in elite competition unless they have transitioned prior to age 12 and have maintained testosterone levels <2.5 nmol/L.

<u>International Powerlifting Federation</u> - Men may compete in women's competitions provided they demonstrate T<2.5 nmol/L throughout the eligibility period. They must have a passport of the same sex. Cannot return to the men's category for four years.

<u>World Rowing</u> - Men are allowed to compete in women's competitions as long as T<5 nmol/L during the 12 months prior to the competition.

<u>World Sailing Council</u> - Males are not allowed unless they have transitioned before the age of 12 and, in that case, must maintain testosterone levels of 2.5 nmol/liter continuously for 12 months prior to competition.

<u>International Skating Union</u> - Men may compete in women's category as long as T<5 nmol/L for at least one year. Cannot return to the men's category for four years.

<u>International Surfing Association</u> - Men are allowed to compete in women's competitions as long as T<5 nmol/L during the 12 months prior to the competition.

<u>World Aquatics (formerly FINA)</u> - Males may not compete in women's competitions unless they have transitioned before the age of 12.

<u>International Tennis Federation</u> - Under Review

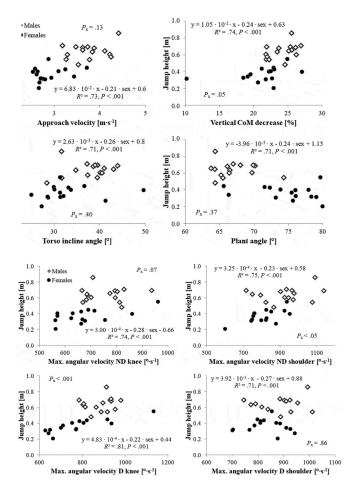
<u>World Triathlon</u> - Generally, men are allowed to compete in the women's category as long as T<5 nmol/L for 24 months; although different international events have different rules. They cannot return to the men's category for four years.

# 6. On the present case referred to Volleyball, what specific information is found in inclusion policies? What differences are found in the performance between sexes?

For the case of World Volleyball<sup>28</sup> it appears that the rules of the International Volleyball Federation (FIVB) allow at least one player from each team to play having "changed gender" or having a "gender that does not match their assigned sex at birth". In general, FIVB rules do not provide a clear formula and rely on FIVB Management to make the final decision on eligibility based on a combination of factors. Unfortunately, there is no guarantee that the list of factors considered by a panel of FIVB judges will guarantee equality for female players. Most importantly, however, the FIVB allows each country to implement its own policies at the grassroots level. For the current case in Colombia, therefore, the final decision rests with the Constitutional Court.

<sup>28</sup> https://www.fivb.com/wp-content/uploads/2024/03/FIVB-Sports-Regulations-2024 clean website 31052024.pdf

All studies on volleyball players confirm that there are clear sex differences in muscle morphology and power between men and women, with a large advantage for male players (see Hilton and Lundberg's diagram above). In addition, the very nature of force production differs qualitatively between men and women. One study, for example, explores sexual dimorphism on technical movements involved in finishing the ball. The speed, strength and angle of the male volleyball spike are superior to those of female players, including the responsiveness of female players to the spike. Graphs comparing technical parameters show very different patterns between men and women<sup>29</sup>.



Multivariate regression analysis between jump height and approach velocity, vertical decrease in CoM, torso inclination and plantar angle, including sex as a control variable.

Note: CoM = center of mass.  $P_x$  = Significance value for the influence of the variable on the x-axis on jump height in the derived regression model.

Multivariate regression analysis between jump height and maximum angular velocity of dominant and non-dominant knees and shoulders, including sex as a control variable.

Note: D = dominant; ND = non-dominant.  $P_x$  = Significance value of the influence of the variable on the x-axis on jump height in the derived regression model.

One incident shows us the danger of a male player participating on a women's team. During a collegiate volleyball match in North Carolina, USA in 2022, a male player (who identified himself as "transgender") on the opposing women's team spiked the ball and hit player Payton McNabb in the head. McNabb instantly suffered a severe concussion and lost consciousness for at least 30 seconds. Since then, McNabb has struggled with partial paralysis and loss of peripheral vision on her right side, as well as cognitive impairments such as memory loss and confusion, along with severe headaches<sup>30</sup>. She had to give up volleyball and suffers long-term damage. The athlete who

<sup>&</sup>lt;sup>29</sup> Fuchs, P. X., Menzel, H. J. K., Guidotti, F., Bell, J., von Duvillard, S. P., & Wagner, H. (2019). Biomechanics of pike jumping in elite male versus female volleyball players. *Journal of Sports Sciences*, *37*(21), 2411-2419.

 $<sup>^{30}\</sup> https://www.ndtv.com/world-news/volleyball-player-shares-story-in-new-docu-after-life-changing-injury-by-trans-opponent-7274620$ 

caused her concussion continued to play on women's teams, and never apologized to her. The day he contacted her on social media he said, "Wow, I'm really living in your head for free, aren't I?". Today McNabb is an activist for women's sports safety and a documentary tells her story including footage of the concussion and the many impacts this event had on her life, her family and on her teammates<sup>31</sup>.

### B. What is the language consistent with international human rights law framework for sport and in relation to the conventions that Colombia has ratified?

It is problematic that the Constitutional Court's communication uses the term "cisgender persons" to refer to men or women. This is a neologism introduced by the German psychiatrist and sexologist Volkmar Sigusch in an article on transsexuality in 1991 where he proposes the use of cis as "on the side of" to refer to the concordance between sex and gender, while trans means "on the other side", where sex and gender do not match. This neologism has no basis in law, nor has it been accepted in the field of human rights. It is based on the assumption that transgenderism defines one part of humanity and "non-transgender" is the other.

The "apparent" concordance based on stereotypical roles about men and women followed by an interchangeable use of sex and gender is at the basis of the concepts of gender identity<sup>32</sup> and gender expression, promoted in the Yogyakarta Principles document, updated in 2017. This non-binding document has never been formally discussed or adopted by Member States of the UN Assembly or in any International Convention, but has been widely used to recommend legal changes by States around the world, resulting in the elimination of sex as a legal status and cultural category and structural changes that undermine and eliminate protections for women against sex-based discrimination and state obligations to achieve de facto sex equality. There are numerous examples around the world demonstrating these impacts on the lives of women and girls, presenting a scenario of struggle and clash of rights<sup>33</sup>.

Colombia is a signatory to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), Article 1 of which refers to *discrimination against women* as discrimination based on sex. The Expert Committee clarified that "sex" refers to the biological difference between men and women and "gender" refers to the socially constructed identities, roles and attributes of women and men and the social and cultural meaning that society attributes to these biological differences, resulting in hierarchical relationships between men and women and the distribution of power and rights in favor of men and to the disadvantage of women<sup>34</sup>. In other words, the use of the word gender refers to social and cultural constructions attributed to biological difference, which give rise to an unequal power relationship between men and women.

<sup>&</sup>lt;sup>31</sup> Watch the documentary *Kill Shot: How Payton McNabb Turned Tragedy Into Triumph*, https://www.instagram.com/independentwomensforum/reel/DDsrG5Uuc2v/

<sup>&</sup>lt;sup>32</sup> Gender identity refers to the internal, individual experience of gender <u>as each person deeply feels it</u>, which may or may not correspond to the sex assigned at birth, <u>including the personal experience of the body</u> (which may involve modification of bodily appearance or function through medical, surgical or other means, provided it is freely chosen) and <u>other expressions of gender, including dress, speech and mannerisms</u>. Gender expression: gender expression as the presentation of one's gender through physical appearance - including clothing, hairstyles, accessories, cosmetics - and mannerisms, speech, behavior patterns, names and personal references, and further noting that gender expression may or may not conform to a person's gender identity.

<sup>&</sup>lt;sup>33</sup> Feminists from Europe, Asia, North America, Latin America and Africa, (2023) "The erasure of sex: the global capture of sex politics by gender identity activists and the effects on the rights of women and girls," *Dignity: A Journal of Analysis of Exploitation and Violence*: Vol. 7: Iss. 4, Article 6.

<sup>&</sup>lt;sup>34</sup> Paragraphs 5 and 9 of General Recommendation No. 28 of the CEDAW Committee, 2010

Among other provisions, the CEDAW Convention requires the eradication of socio-cultural patterns of conduct, prejudices, stereotyped roles and practices that lead to the subordination of women, which is considered to be the basis of violence against women or gender-based violence<sup>35</sup>. Although personal feelings, experiences and expressions have been protected by the States under the free development of personality, there is no right to non-discrimination based on "gender identity".

The United Nations Special Rapporteur on the Elimination of Violence Against Women has presented a recent and relevant report on Violence against women and girls in sports36, recalling several obligations of States Parties:

a. In accordance with article 3 of CEDAW, they are obliged to take in all fields, in particular in the political, social, economic and cultural fields, all appropriate measures to ensure the full development and advancement of women, for the purpose of guaranteeing them the exercise and enjoyment of human rights and fundamental freedoms on a basis of equality with men. Article 11 of the Convention also obliges all States parties to take appropriate measures to eliminate discrimination against women in employment, as well as to protect the right to health, including the safeguarding of the reproductive function, and to safety in working conditions. Article 13 of the Convention also refers to the need for States parties to take all appropriate measures to eliminate discrimination against women and to ensure that women can participate in recreational and sporting activities on a basis of equality with men.

b. Also, under international law, women and girls have a right to privacy, which would be lost by imposing coed spaces in sports locker rooms and other intimate facilities. Article 17 of the 1996 International Covenant on Civil and Political Rights states that "no one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honor and reputation" and that "everyone has the right to the protection of the law against such interference or attacks."

c. High-level United Nations documents, such as the Beijing Declaration and Platform, also recognize the link between sports, education and the empowerment of women and girls. In the declaration, States commit to support the advancement of women in all areas of sport and physical activity and to encourage the full and equal participation of young women in non-academic activities such as sports, in part by strengthening gender-sensitive programs for girls and women of all ages in educational and community institutions. In its resolution 2 4/1, the Human Rights Council also recognized the need to involve women and girls in sports.

d. Under international human rights law, differential treatment on prohibited grounds may not be discriminatory if it is based on reasonable and objective criteria, pursues a legitimate aim, its effects are appropriate and proportionate to the legitimate aim pursued, and it is the least intrusive alternative to achieve the intended result. Keeping sports separate on the basis of sex is a proportionate action that corresponds to legitimate aims within the meaning of Article 26 of the International Covenant on Civil and Political Rights and does not automatically lead to the exclusion of transgender persons from sports, nor does it require invasive gender recognition. When combined with other measures, such as open categories, equality in sport can be maintained while still ensuring

<sup>&</sup>lt;sup>35</sup> Art 5 of the CEDAW Convention, RG 19, 28, and 35.

<sup>&</sup>lt;sup>36</sup> Alsalem, Reem (2024), Violence against women and girls in sport. https://www.ohchr.org/en/documents/thematicreports/a79325-report-special-rapporteur-violence-against-women-and-girls-its

that everyone can participate, which is a line of action pursued by several professional sports associations.

### C. What are the effects of the participation of transgender persons in sports, on women's rights?

The clash of rights has been explained above, especially between men who self-identify as women and women. Special Rapporteur Reem Alsalem's Report is particularly relevant to answer this question. She documents this particular situation in several sections of her report.

The Report describes physical violence when eligibility rules are deliberately violated and when the risk of injury to female athletes is intentionally raised, especially when males are given access to female-only sporting venues, particularly in disciplines such as volleyball, basketball and soccer. Injuries include broken teeth, concussions with neurological impairment as sequelae, and leg and skull fractures.

The fear of injury has led to extreme psychological distress due to physical disadvantage, the loss of the possibility of participation and fair competition, of winning medals and positions, loss of educational and economic opportunities, and the violation of their privacy in locker rooms and other intimate spaces. It also produces changes in personality and low self-esteem, withdrawal from sports as a life option. Female athletes are also victims of forced dissemination of sexual images without their consent, both online and offline, and of exhibitionism, due to among other things, to the fact that single-sex locker rooms are not maintained. Such online violence affects the mental health and sense of personal safety of female athletes and can undermine their performance. It can also damage their public image and have long-term repercussions on their careers.

Female athletes and coaches who object to the inclusion of men in their venues on grounds of safety, privacy and fairness are silenced or forced into self-censorship; otherwise, they risk losing sporting opportunities, scholarships and sponsorships. Many are also accused of bigotry, suspended from sports teams and victims of restraining orders, expulsion, defamation and unfair disciplinary proceedings.

In addition, the report documents how numerous studies point to multiple barriers for women to participate in professional and amateur-level sports, including poverty, diminished incentives, the absence of role models for women and girls from marginalized communities, and limited access to training facilities, infrastructure and resources at elite, sub-elite and recreational levels in schools, universities and professional leagues, as well as in rural areas.

Other reasons include social and cultural prohibitions on female participation such as the popular belief in some parts of the world that hymen rupture is considered proof of virginity, the increased likelihood of girls dropping out of sports at age 14, often due to lack of access to resources and opportunities to develop their skills, increased care responsibilities or domestic chores, decreased economic rewards and opportunities, among others.

Finally, sexual harassment, rape and even trafficking for prostitution is very common in women's sports by male authorities and coaches, among other situations, causing harmful consequences such as eating disorders, headaches, insomnia, fear, anxiety, decreased concentration, aggression, reduced self-confidence, substance abuse, self-injurious behavior, isolation and academic or athletic

performance. Psychological violence can also lead to feelings of guilt, suicidal thoughts, depression and humiliation.

Ultimately, the participation of men in women's teams will not only put an end to the existence of women's sports, but will also put an end to what sport represents in the development of women's confidence, leadership, independence and empowerment, constituting another form of violence against women<sup>37</sup>.

The participation of men in women's competitions also contributes to normalizing the massive requests for transfer<sup>38</sup> of men who self-identify as women to women's prisons<sup>39</sup>, to enter women's bathrooms, to be admitted to shelters for victims of violence against women, to occupy positions designed for women, among others.

Although not the subject of the present case, hormonal and surgical interventions for alleged "sex change" also have negative physical, mental and social health effects for both men and women that include debilitating and potentially life-threatening side effects of transgender hormones and other treatments, as well as serious mental health problems such as schizophrenia and dissociative identity disorder, as untreated underlying problems<sup>40</sup>. Other risks studied include increased risk of blood clots, cardiovascular complications, changes in bone density, altered cholesterol levels, possibility of certain cancers, fertility disorders and blood pressure fluctuations, among others<sup>41</sup>.

#### **Conclusions for the present lawsuit:**

Several aspects referred to in the FACTS AND CLAIMS of this lawsuit exemplify the confusion between the way someone feels or identifies with a stereotype, and the factual fact of female or male biology involved in sports.

 $<sup>^{37}\,</sup>See\ \underline{https://www.ohchr.org/es/instruments-mechanisms/instruments/declaration-elimination-violence-against-women}$ 

<sup>38</sup> https://www.womensliberationfront.org/news/ca-womens-prisons-anticipate-pregnancy-sb123

<sup>39 &</sup>lt;a href="https://www.womenarehuman.com/transgender-teen-charged-with-making-death-threats-against-two-individuals/">https://www.womenarehuman.com/transgender-teen-charged-with-making-death-threats-against-two-individuals/</a>
40 See (1) Hughes Mia, (2024), The WPATH Files: Pseudoscientific surgical and hormonal experiments on children,

 $<sup>^{\</sup>rm 40}$  See (1) Hughes Mia, (2024), The WPATH Files: Pseudoscientific surgical and hormonal experiments on children, adolescents and vulnerable .

<sup>&</sup>lt;sup>41</sup> See (1) Stephanie H.M. Van Goozen, Peggy T. Cohen-Kettenis, Louis J.G. Gooren, Nico H. Frijda, Nanne E. Van De Poll, Gender differences in behavior: Activating effects of cross-sex hormones. Van De Poll. Gender differences in behavior: Activating effects of cross-sex hormones, Psychoneuroendocrinology, Volume 20, Issue 4, 1995, Pages 343-363; (2) Montserrat Cardenas, Fabián Alvarez, Alfredo Cabrera-Orefice, Cristina Paredes-Carbajal, Alejandro Silva-Palacios, Salvador Uribe-Carvajal, José J. García - Trejo, Natalia Pavón, (2024) Cross-sex hormone replacement: Some effects over mitochondria, The Journal of Steroid Biochemistry and Molecular Biology, Volume 244, 106595, ISSN 0960-0760, (3) Louis J. Gooren, Erik J. Giltay, Mathijs C. Bunck, Long-Term Treatment of Transsexuals with Cross-Sex Hormones: Extensive Personal Experience, The Journal of Clinical Endocrinology & Metabolism, Volume 93, Issue 1, 1 January 2008, Pages 19-25, (4); (4) Delgado-Ruiz R, Swanson P, Romanos G. Systematic Review of the Long-Term Effects of Transgender Hormone Therapy on Bone Markers and Bone Mineral Density and Their Potential Effects in Implant Therapy. I Clin Med. 2019 Jun 1;8(6):784; (5) Chan Swe N, Ahmed S, Eid M, Poretsky L, Gianos E, Cusano NE. The effects of gender-affirming hormone therapy on cardiovascular and skeletal health: A literature review. Metabol Open. 2022 Mar 3;13:100173; (6) Yun Y, Kim D, Lee ES. Effect of Cross-Sex Hormones on Body Composition, Bone Mineral Density, and Muscle Strength in Trans Women, I Bone Metab. 2021 Feb: 28(1):59-66; (7) Hudson I, Nahata L, Dietz E, Ouinn GP, Fertility Counseling for Transgender AYAs. Clin Pract Pediatr Psychol. 2018 Mar;6(1):84-92; (8) Costa R, Colizzi M. The effect of cross-sex hormonal treatment on gender dysphoria individuals' mental health: a systematic review. Neuropsychiatr Dis Treat. 2016 Aug 4;12:1953-66; (9) https://my.clevelandclinic.org/health/treatments/22322-masculinizing-hormone-therapy; (10) https://www.medicalnewstoday.com/articles/male-to-female-hormones

In the lawsuit the plaintiff indicates that he always "(...) liked girly things such as: The color pink, toys, being delicate, even more thinking and acting like a girl", "she does not feel comfortable training with men or playing at the level of men". She insists that she is not recognized as an athlete by groups made up of men. She considers that trans men -people who transition from female to male- "under sexist logic, [...] and under the fact that a trans man was born a woman would not pose any risk to male sexual hegemony, since their physical constitution does not represent any danger, they are still inferior, given that they were born women". The plaintiff mentioned that the strength that each athlete has "is acquired, is gained with training, that is, it is not given, you have to fight to achieve the performance required, which volleyball demands" and reiterates: "the triumph on the volleyball court is not only given by having more strength, technique is also required, agility and flexibility are key factors and these can be developed by anyone, yes, with training".

In the lawsuit there is a clear understanding that women do not pose a risk to men in sport, and yet it does not refer to the risks of men's participation in women's categories. The claim reinforces stereotypical roles of girls and women, which lead to subordination to men. Also of concern is the claim that if a woman does not win, it is because she has not tried hard enough.

These concepts do not seem to understand the principle of <u>substantive equality</u> enshrined in the CEDAW, which implies recognition and valuation of biological difference, while protecting equality in human dignity. Identical or neutral treatment of women and men may constitute discrimination against women when it has the result or effect of depriving them of the exercise of a right because pre-existing sex-based disadvantages and inequalities have not been taken into account. States parties must take into account that they must comply with their legal obligations to all women by formulating public policies, programs and institutional frameworks that aim to meet the specific needs of women in order to achieve the full development of their potential on an equal basis with men. It involves the implementation of general, differentiated and temporary special measures to achieve equality for women<sup>42</sup>.

There is no evidence in the complaint that the plaintiff's right to sports in same-sex teams has been impeded; yet personal feelings are superimposed on the human rights of all women under the false premise that a felt identity equates to a biological sex. Characterizing oneself with the stereotype of the opposite sex cannot be equivalent to BEING of the opposite sex and discriminated against as such. Consistent with the scientific arguments presented in section A of this paper, a "right" to be considered of the opposite sex cannot be demanded. In fact, many of the effects of male participation in female categories qualify as violence against women.

The wealth of evidence and research data demonstrating that males have a competitive advantage over females, coupled with a total absence of data indicating that there is a mitigation strategy that evens the playing field, leads to the conclusion that allowing males to self-identify in female competitions results in increased safety risk and overt sex-based discrimination against female competitors (women and girls). Exposing female players to such overt risks results in diminished opportunities, both socially and physically for female athletes, and even becomes a recipe for the destruction of the female experience and the female game. It is not up to female players to absorb the risks and responsibilities of accommodating and extraordinary "inclusion".

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<sup>&</sup>lt;sup>42</sup> General Recommendation No. 28 of the CEDAW Committee.

#### For the above reasons we respectfully suggest to the Constitutional Court to:

If the claim is to allow a male who identifies with the stereotype of a woman to participate in women's sports teams, it should be denied. Instead, by virtue of Colombia's obligations under international human rights law, the Court could urge those who manage the sports sector in the country to the following:

- 1. Encourage Sports Associations to apply a strict eligibility limit based on gender. All males regardless of identity, philosophy and/or religion should remain in the male category and all females in the female category.
- 2. In cases where an athlete's sex is unknown or uncertain, a dignified, rapid, non-invasive and accurate method of sex recognition (such as a cheek swab) should be applied to confirm the athlete's sex, or where necessary for exceptional reasons, genetic testing should be performed for this purpose. In non-professional sporting venues, it may be appropriate to present original birth certificates for verification. In some exceptional circumstances it may be necessary for such testing to be supplemented by more complex tests. The female category in sport should also be protected by applying systematic testing for doping and artificially increased testosterone levels, without exception<sup>43</sup>.
- 3. Encourage Sports Associations and sports facilities to maintain exclusive locker rooms and restrooms for women, to meet their needs for privacy and safety.
- 4. Urge Sports Associations to implement anti-harassment policies to ensure that players who self-identify with the female stereotype does not suffer harassment on men's teams or players who self-identify with the male stereotype do not suffer harassment on women's teams.
- 5. Urge the Ministry of Sport to implement general, differentiated and temporary special measures to achieve equality between women and men or substantive equality in sports, in accordance with its commitments under the CEDAW Convention. This includes adequate and safe facilities for women's categories, opportunities and support for training, travel and other issues, equal salaries and benefits, comfortable (not hypersexualized) outfits according to the sport, enforced rules against sexual harassment, labor harassment and other types of support based on biological difference and the fact that some are mothers, among many others.

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<sup>&</sup>lt;sup>43</sup> Recommendations contained in the Report of the United Nations Rapporteur, Reem Alsalem on Violence against women and girls in sport, 2024.