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PO Box 357190
Gainesville, FL 32635-7190
www.Best4Children.org

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Dear Honorable Justices of the Constitutional Court of Bulgaria and the Supreme Court of Cassation,

My name is Dr. Michelle Cretella, M.D., Executive Director of the American College of Pediatricians (ACPeds), a national organization of pediatricians and other health professionals that promotes the well-being of children and upholds the ethical principles of the Hippocratic Oath. I am submitting two separate scientifically referenced statements. This first statement is to establish that human sex is an innate and immutable biological trait determined at fertilization. The second statement enclosed will establish that transgender affirmative intervention, consisting of social transition, pubertal blockade, cross-sex hormones and cross-sex surgery, is not the international standard of care for youth with transgender belief or a diagnosis of gender dysphoria.

Human sex is a medically diagnosable innate and immutable trait determined at fertilization. Medicine has long defined sex as a biological trait that distinguishes living things as being male or female based on the complement of sex chromosomes, the presence of distinctive reproductive organs and unambiguous genitalia.⁵ This definition is not arbitrary. In the life sciences, sex is defined according to whether an organism is structured to donate or receive genetic material during the reproductive process. Organisms that donate genetic material are classified as male; those that receive genetic material are classified as female. Human beings, as do all mammals, reproduce sexually. By definition, such a reproductive system is a binary system. It requires the cooperation of two distinct sets of reproductive organs that give rise to and facilitate the union of two distinct gametes, sperm and ovum, to conceive an offspring. The term male designates members of the species who have reproductive organs structured to produce sperm and to deliver this to female members of the species. The term female designates the members of the species who have reproductive organs structured to produce ova, receive sperm, then gestate and give birth to a conceived offspring. Defining sex according to how an organism is innately structured to participate in the reproduction of the species is a stable and universally applicable definition that allows the consistent differentiation of males from females even when individuals exhibit behaviors that are not culturally typical of males or females.⁶

Primary sex determination in humans occurs at fertilization and is dependent upon the zygote's two sex chromosomes, or more specifically, upon the presence or absence of genetic material normally

Phone: 352-376-1877 • Fax: 352-415-0922 • admin@acpeds.org

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present on a Y chromosome. Barring genetic disorders, females contain two X chromosomes in every nucleated somatic cell, and males possess an X and a Y chromosome in every nucleated somatic cell.^{7,8} Interventions that alter a person's sexual appearance do not alter the person's genetic code. Therefore, sex does not change. Administering sex hormones and other drugs can alter appearance and physiology to varying degrees, but these chemicals do not change biological sex. No amount of medical intervention can "transition" any person from one sex to the other.

Disorders of sex development (DSD) also known as "intersex conditions" are medical disorders - not additional sexes. Disorders of sex development (DSD), commonly referred to as intersex conditions, are maladies in which normal sexual differentiation and function are disrupted. Some argue that DSD demonstrate the existence of more than two sexes.^{9,10,11} However, DSD do not represent additional reproductive organs, gonads or gametes. Therefore, by definition, DSD do not constitute additional sexes. Human sex is a binary, not a spectrum, for the reasons previously stated. In reality, DSD are rare congenital disorders affecting 0.02% of the population in which either genitalia are ambiguous in appearance, or an individual's sexual appearance fails to match what would be expected given the person's sex chromosomes.^{12,13} Reflecting the disordered nature of these conditions, all DSD are associated with impaired fertility.¹⁴

The definition of "sex" as biological sex that is adopted in the Bulgarian Constitution, and the established understanding of the traditional family as a union between a man and a woman, is supported by science, represents a basic value for the Bulgarian society and are part of the national identity within the meaning of Article 4, paragraph 2 of the TEU and respected by the EU.

In view of the above considerations, I express the opinion that the adoption of a different interpretation of the term "sex" from the interpretation of the Constitutional Court in decision № 13/2018 would create medical and legal uncertainty and contradiction with the Bulgarian constitutional identity due to the imposition of a new order alien to the Bulgarian constitutional and legal system, new procedures, contrary to the Constitution, as well as due to the real danger of contradiction with the concepts already established in the legislation and case law.

Respectfully,

Michelle Cretella, M.D.

Executive Director of the American College of Pediatricians

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