

# CORRESPONDENCE

Answers given by:

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## Question No.1: Dr. V. P.: How do steroid hormones work at the cellular gene level?

**A:** The body's functions at the cellular, tissue and organ level are coordinated by chemical messenger systems.

Of the three categories of hormones, sexosteroids (testosterone) are secreted by the testicles, cortisol and aldosterone by the adrenal cortex, estrogen and progesterone by the ovaries, respectively by the placenta.

Steroids are organic compounds with a structure based on the sterolic nucleus, a chemical molecule that has three cyclohexane rings and one cyclopentene ring.

Steroid hormones circulate in the blood stream mainly bound to plasmatic proteins. Less than 10% of these hormones are free circulating in plasma (Guyton).

Steroid hormones produce specific effects by binding to the proteic receptor, inducing protein synthesis in the target cell.

The steroid hormone passes through the cell membrane, reaching the cytoplasm, where it binds to the specific receptor protein.

The resulting molecular complex enters the nucleus (**Guyton**), and here, by binding to

the DNA molecule, the process of transcription of genes with the formation of messenger RNA is activated, and later mRNA diffuses into the cytoplasm and modulates cellular functionality.

*References: Guyton A., John E.Hall, Tratat de Fiziologie a Omului, Ed. 11, ISBN 978-973-87261-4-7, p. 905- 917, University of Mississippi, Medical Centre Jackson, Mississippi, 2007.*

## Question No.2: . M.C: The increased dimensions of the labial structures (Fig.1a,b), especially at the level of the labia minora, and, respectively, those of the clitoris vary from one person to another. How is sexuality influenced by this differentiation?

**A:** All external genitals develop gradually, with the transformation, over time, of the appearance and position of the vulva, determining their specific anatomy and functionality, such as directing the urinary stream, or, during intercourse, prolonging the canal vaginally by the labiae.

From a topographical point of view, the vulvar cleft reaches, from a semi-horizontal position, to orient antero-posterior (sagittal), thus being fixed between the thighs, its position resulting from the accentuation of the lumbar curvature and the rotation of

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the pelvis, which raises the posterior pelvis and arrays the buttocks, ie an element of visual arousal for the male partner (See JCS, Vol.2, No.3-4: “Physiological” lumbar hyperlordosis in female in the evolution of the human species and male sexual preferences- DOI:10.37072/JCS.2019.04.02).

Sometimes the vulva may have a small vertical inclination, the anterior commissure of the labiae and of the clitoris are visible (Fig. 2 Treaty of Clinical Sexology, pg 40). Depending on the position of the vulva, the sexual partners adopt the appropriate copulatory techniques, in order to achieve an efficient sexual intercourse, respectively an optimal copulatory yield, by directly involving the clitoral and the labial receptor cells (*corpus celuli tactilis*), on a surface as large as possible, which amplifies the de-

gree of excitability of the woman.

The labia minora (*the nymphs*) are small skin folds (average length of 3 cm) that extend from the obliqueclitoris downwards, inside the labia majora. They are pinkish or brownish. In the Bushmen population, in adult women, the labiae may reach sizes of 10-15 cm in length, anatomical aspect called “*hottentot apron*” (Drapell), constituting an ethnic peculiarity (Testut).

Also, in girls who masturbate for a longer period, the minor labiae are more developed beyond the labia majora.

On the surface of the labia minora are special tactile corpuscles, called “*of voluptuousness*”, with thermal and pain type receptors, which, after touching especially the inner



Fig. 1 a



Fig. 1 b

Fig. 1 a, b: Hypertrophy of the labia minora- images from JCS,Vol.4, Nr,3, 2021, pg.128



**Fig. 2:** The vertical inclination of the vulva-  
image from Treaty of Clinical Sexology, pg.40

Also at this level, the secretions of the adnexal glands of the genital tract are eliminated, and lubricate the surface of the labiae and of the vaginal introit, secretions that have an important role in the sexual intercourse, and, respectively, due to the pheromone content, induce a state of sexual attraction and arousal (according to the animal model) and erection of the penis, increasing the penile tone of the partner.

Pheromones also increase the state of excitability and the tendency in the practice of cunilingus (See JCS, Vol.5, No.1:“Rectal dysplasia in women after HPV infection by penile vector” DOI: 10.37072/JCS.2022.01.02)

Hypertrophy of the clitoris and of the labiae may be genetically determined or by self- or heteromasturbation maneuvers, with an emphasis on their size.

Increasing the size of the clitoris and of the labiae will determine the presence of more cellular receptors

as well as a greater amount of pheromones, increasing the excitability and erection of both sexual partners.

#### References:

1. Fig.1-Vasile Nițescu, JCS, Vol. 4; No.3: Masturbation – between normality and pathology (from puberty to adulthood)–Part II-DOI:10.37072/JCS.2021.03.03. p.128, 2021.
2. Fig.2- Vasile Nițescu,Treaty of Clinical Sexology, The Publishing House Of The Romanian Academy; ISBN 978-973-27-2574-0, 40, 2018.
3. Andy Petroianu ,Valentin Nițescu: JCS, Vol.2, No.3-4: “Physiological” lumbar hyperlordosis in female in the evolution of the human species and male sexual preferences- DOI:10.37072/JCS.2019.04.02), 2019.
4. G.Constantinescu, V. Nițescu: JCS, Vol.5, No.1:“Rectal dysplasia in women after HPV infection by penile vector” DOI: 10.37072/JCS.2022.01.02), 2022.

#### **Question No.3: .Are the functions of the human body controlled by chemical messengers such as cytokines?**

##### **If so, how do they work?**

**A:** Cytokines are peptides secreted extracellularly with the effect of endocrine, autocrine, paracrine hormones.

For example: the lymphokines, provided by the T helper lymphocytes that act on immune cells.