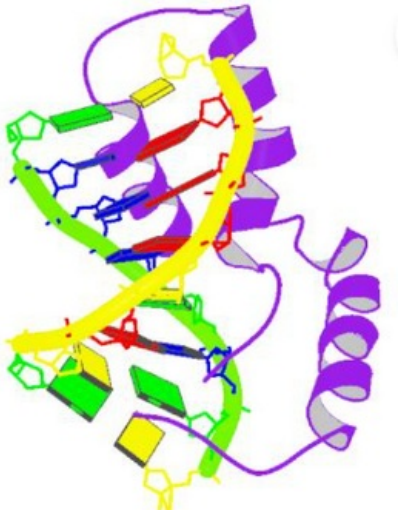
SRY

Gene ***SRY*** (Sex-determining region Y; Yp11.3; OMIM: *480000 (https://omim.org/entry/480000)) has a very an important role in the **development of the male sex**'. From the point of view of karyotype, male gender is conditioned by the presence of chromosome Y - however, the gene *SRY* plays a decisive role. It encodes a specific transcription factor that is at the beginning of the cascade determining the development of the male sex. Mutations of this gene cause the development of a female phenotype (female 46,XY), which is associated with gonadal dysgenesis.[1]



SRY protein

Since the SRY region is located near one of the pseudoautosomal regions (PAR1), the translocation of the SRY region to the chromosome X can occur in case of uneven crossing-over. In such a case, it is possible that the resulting sperm will fertilize the egg, giving rise to the so-called **XY-females*" (46,XY, there is no SRY region on the Y and their X chromosome is normal) or*** *XX-males''* (46,XX, SRY is translocated on the paternal X chromosome, men affected in this way are usually affected by reproductive disorders, as other genes important for spermatogenesis have not been transferred).

Links

Related Articles

- Gonosomes
- Y chromosome
- Chromosomal sex determination

External links

- Gender and genetics – Current genetics (http://biol.lf1.cuni.cz/ucebnice/pohlavi.htm)
- SRY: Sex determination – Genes and Disease (https://www.ncbi.nlm.nih.gov/books/NBK22247/)

References

1. KOČÁREK EDUARD, PÁNEK MARTIN and NOVOTNÁ DRAHUŠE. *Clinical cytogenetics I: an introduction to clinical cytogenetics*. 2., ed. Prague: Karolinum, 2010, 134 p.