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# DT56a, the biomimicry of estrogen creating an ideal SERM

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There are five distinct hormonal phases that the female body goes through that create a specific biochemical environment affecting women in the different stages of their life- juvenile, puberty, reproduction, pregnancy & post-reproduction.

The passage from the reproductive to the post-reproduction stage creates a dramatic period that greatly affect women's quality of life and health for more than a quarter of their life span. The post-reproduction stage has very dominant characteristics and starts in the peri-menopause stage where the hormonal imbalance creates great turmoil, turning into menopause and post-menopause.

From our experience, retaining hormonal balance through the use of HT, has provided advantages. In practice however, ongoing clinical and emotional concerns about HT, emphasize the importance of an additional solution that can provide a treatment that can support women in the long term, which is critical for healthy aging and optimal quality of life.

Biomimetics or biomimicry is an innovative approach that seeks sustainable solutions to human challenges by emulating nature's time-tested patterns and strategies. Based on this approach, DT56a, a unique compound acting as a Selective Estrogen Receptor Modulator (SERM), from botanical origin, was developed.

Estrogen Receptors (ERs) are found in most of the female body's tissues, thus, the decline in the production of estrogen at menopause, creates a great imbalance that affects all the organs. In all hormonal phases, a specific biochemical environment, expressed through the bondage with different co-activators, triggers a response according to the age and circumstantial needs of women. The bondage of estrogen to a co-activator acts as a catalyst in the evolution of the response based on the body's needs. DT56a mimics the attachment of E2 in alliance with co-activators to ER in designated tissues. However, contrary to HT, the mimicry of DT56a is selective, promoting an agonistic response only in desired tissues while mimicking the attachment of E2 to a co-repressor in the sensitive tissues of the breast and uterus, providing an antagonistic bond of the ER.

The scientific portfolio of DT56a, including a head to head study vs. HT, has shown DT56a to offer women similar efficacy as HT in relieving symptoms and preventing post-menopausal diseases, while providing a reassuring safety profile. These favourable data position DT56a as one of the best first line treatments for the management of menopause, providing the required effectiveness for the management of post-menopause health challenges, without additional risk factors.

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