

# Review of: "Eroticism as a hormetic stimulus in health and ageing"

Reinhard Wetzker<sup>1</sup>

<sup>1</sup> Friedrich-Schiller Universität Jena

**Potential competing interests:** No potential competing interests to declare.

I read with great interest the review written by Marios Kyriazis suggesting an hormetic effect of sexuality on healthy aging. I thoroughly support publication of this message in Qeios in the current form and have only some minor points, which the author may consider to implicate in the contemplation of health promoting effects of sexual activities in the elderly.

The first point touches the effect of "eroticism" on human organs actively mediating the aging process. Unquestionably the immune system acts as a mediator and driver of aging [1] but has been only parenthetically mentioned in the review as an effector of health promoting effects of sexual activities. Hence I suggest to consider the compelling literature data, which demonstrate the predominantly positive effects of androgens and estrogens on responses of the innate and adaptive immune system (without neglecting its gender specific bias) [2]. Exemplarily, CD4+ T cells, which have been identified as a key marker of a "resilient" immune system [3] are promoted by sexual hormones [2]. A causal chain of hormetic sexual activities, increased release of sexual hormones, improved function of the adaptive immune responses and decreased vulnerability of aging people to infections might be reasonable.

Other well established positive effects of sexual activities pertain to the muscular organs, specifically the cardiovascular system of aging people.....

In sum I suggest to widen the attendance of positive effects of "eroticism" on key organs comprising the aging process and support publication of the given article in Qeios.

Ref.

[1] Fulop, T. et al. Immunology of aging: the birth of inflammaging. Clin. Rev. Allergy Immunol. 2023 64, 109-122.

[2] Sciarra, F. et al. Gender-Specific Impact of Sex Hormones on the Immune System. Int. J. Mol. Sci. 2023, 24, 6302.

[3] Ahuja, S.K. et al. Immune resilience despite inflammatory stress promotes longevity and favorable health outcomes including resistance to infection. Nat. Commun. 2023, 14, 3286.