

“PHOSPHODIESTERASE INHIBITORS IN VASCULAR AGING: THE RISE OF PHOSPHODIESTERASE-1”

1. Phosphodiesterase 1 inhibitors are promising therapeutic agents for vascular aging (this thesis).
2. The attractiveness of using PDE inhibitors lies in their diversity and the cell- and disease-specific regulation of the subtypes, potentially creating high specificity and low toxicity (this thesis).
3. In healthy conditions, PDE5 is the main determinant of cGMP metabolism, while PDE1 takes over under disease conditions (this thesis).
4. Future studies should evaluate PDE1 inhibition in models that combine aging and atherosclerosis, given the modifying role of aging in plaque formation, and the fact that PDE1 is the dominant PDE in aged vessels (this thesis).
5. Specific loss of genome maintenance due to defective ERCC1 function in smooth muscle cells impairs vasodilation and increases the level of senescence markers in blood vessels (this thesis).
6. Genetic mistakes are the source of both our existence and death.
7. The role of nanodomains in cell signalling is crucial and yet to be clarified in many aspects and pathways.
8. Patients taking antihypertensive medicines should be advised about their concurrent use with phosphodiesterase inhibitors as it can cause symptomatic life-threatening hypotension (Wu et al., Chest. 2022 Dec).
9. Phosphodiesterase 1 inhibitors provide additional benefits beyond cardiovascular protection, such as cognitive enhancement and neuroprotection in aging (Knott et al., Int J Mol Sci. 2017 Apr).
10. The best biological aging clock runs on vascular variables.
11. *Out beyond ideas of wrongdoing and rightdoing, there is a field. I'll meet you there* (Rumi).