



Research article

# The membrane - redox potentials three - state line system dependent - full 9 stepped cycle of proton conductance and the evolution based biological mechanism of early ageing

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## Abstract:

By us postulated that evolution based biological mechanism of early ageing have been connected with these processes, during which as if have been occurred the shift from a more powerful energy accumulating systems as “Donators + membraneredox potentials three - state line system +  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” to the slow activated bioenergy accumulating regulations of early evolution times in the form as ADP + Pi +  $H^+$  + nH + memb.space, accompanied with the disability of membrane redox potentials three - state line system and the slow activation of  $O_2$  acceptor utilizing regulations (Ambaga and Tumen-Ulzii, 2015).

The maintaining of increased gamma states of bioenergetic membranes, consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redoxy potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing. **Copyright ©WJSRR, all rights reserved.**

**Key words:** the membrane - redox potentials three - state line system dependent - full 9 stepped cycle of proton conductance, evolution based biological mechanism of early ageing.

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## Introduction

Human ageing is associated with a wide range of physiological changes that not only make people more susceptible to death but limit normal functions and render people more susceptible to a number of diseases.



It would be more interesting establish the relationship between the maintaining of increased gamma states of bioenergetic membranes, consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redox potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells and the evolution based biological mechanism of early ageing.

## Results and conclusion

By us postulated that evolution based biological mechanism of early ageing have been connected with these processes, during which as if have been occurred the shift of more powerful energy accumulating systems as “Donators + membraneredox potentials three - state line system +  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” to the slow activated bioenergy accumulating regulations of early evolution times in the form as ADP + Pi +  $H^+$  + nH + memb.space, accompanied with the disability of membrane redox potentials three - state line system and the slow activation of  $O_2$  acceptor utilizing regulations (Ambaga and Tumen-Ulzii, 2015).

1-th stage of the full 9 stepped cycle of proton conductance inside human body is distinguished by release of proton, electron from food substrates (carbohydrate, amino acids, fatty acids), under the undirect action of oxygen, which have been released from membrane surroundings of erythrocyte in the 9 -th stage of full cycle, from this stage started the proton conductance within cycle.

The maintaining of increased gamma states of bioenergetic membranes, consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redox potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in this stage of the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing.

2-th stage of the full 9 stepped cycle of proton conductance inside human body is distinguished by transfer of proton, electron to NADH,  $FADH_2$  as hydrogen atom accompanying with release of  $CO_2$ , by which stage continued the proton conductance within cycle.

The maintaining of increased gamma states of bioenergetic membranes, consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redox potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in this stage of the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing.

4- th stage of the full 9 stepped cycle of proton conductance inside human body is distinguished by transfer of electron to cytochrom C without accompanying proton, which one is stages of continuity of the proton conductance within cycle.

The maintaining of increased gamma states of bioenergetic membranes, consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redox potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in this stage of the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing.

According to the full 9 stepped cycle of proton conductance inside human body proposed by Ambaga and Tumen-Ulzii (2015) 6-th stage of the full 9 stepped cycle of proton conductance inside human body is distinguished by creation of proton gradient in the intermembrane space of mitochondria and following transfer of proton to matrix through ATP synthase, which is played important role in continuity of the proton conductance within cycle.

The maintaining of increased gamma states of bioenergetic membranes , consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redoxy potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in this stage of the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing.

Also 7- th stage of the full 9 stepped cycle of proton conductance inside human body is distinguished by formation of metabolic water in the mitochondrian matrix by oxidation of proton by activated oxygens i.e, by protonation of activated oxygen by matrix proton, which is one of a previous stages of continuity of the proton conductance of the full cycle.

The maintaining of increased gamma states of bioenergetic membranes , consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redoxy potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in this stage of the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing .



**Figure 1.** The membrane - redox potentials three - state line system dependent - full 9 stepped cycle of proton conductance inside human body.



9- th stage is distinguished by entry of oxygen from lung, formation of  $\text{HbO}_2$ , proton combine with hemoglobin (generation of  $\text{HbH}$ ) which promotes the release of oxygen from hemoglobin, oxygen diffusion to all cells conditioning the release of proton, electron from food substrates .

The maintaining of increased gamma states of bioenergetic membranes, consisting of decreased quantity of saturated fatty acids and decreased quantity of unsaturated fatty acids with low levels of redox potentials conducting the slow flow of protons and electrons and also with low amount of ATP, heat energy in this stage of the full 9 stepped cycle of proton conductance, located in 14 trillion somatic cells served the role of main reasons to cause the evolution based biological mechanism of early ageing.

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