

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 organ formation

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## Abstract

By us postulated that evolution based biological mechanism of organ formation had been connected with these processes as shift from the slow developed bioenergy accumulating regulations of early evolution times in the form as “Donators as water molecules + ADP + Pi + H<sup>+</sup> + nH + memb.space= ATP + nH + O<sub>2</sub> formation and the shortage of membrane redox potentials three - state line system, lack of O<sub>2</sub> acceptor utilization regulations “ to more powerful energy accumulating systems as “Donators (glucose, aminoacids, fatty acids) + membrane redox potentials three - state line system + acceptor as O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>” and formation of 4 compartments of body (Ambaga and Tumen-Ulzii, 2015) .

The appearance of more powerful energy accumulating systems as “Donators + membrane redox potentials three - state line system + O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>” and formation of 4 compartments of body (Ambaga and Tumen-Ulzii, 2015) had been played more



important role in the evolution based developing of various organs and 4 compartments of body and 10 functional systems. **Copyright © WJSRR, all rights reserved. USA**

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

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## Introduction

Organ formation was the final results of evolution based biological requirements for maintaining the normal functioning of “Donators + membrane redox potentials three - state line system +  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” system during last 1 billion year in the whole organism level.

It would be more interesting establish the relationship between the maintaining of the normal functioning of “Donators + membrane redox potentials three - state line system +  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” system and the evolution based biological requirements for organ formation in the whole organism level.

## Results and conclusion

The appearance of more powerful energy accumulating systems as “Donators + membrane redox potentials three - state line system +  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” (Ambaga and Tumen-Ulzii, 2015) had been played more important role in the evolution based developing of various organs and 4 compartments of human body and 10 functional systems.

By us postulated that evolution based biological mechanism of organ formation in the whole organism level had been connected with these processes as shift from the slow developed bioenergy accumulating regulations of early evolution times in the form as “Donators as water molecules + ADP + Pi +  $H^+$  + nH + memb.space= ATP + nH +  $O_2$  formation and the shortage of membrane redox potentials three - state line system, lack of  $O_2$  acceptor utilization regulations to more powerful energy accumulating systems as “Donators + membrane redox potentials three - state line system +  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” and formation of 4 compartments of human body (Ambaga and Tumen-Ulzii, 2015).

The evolution based shift from one cell to whole organism had been accompanied with conversion of first slow developed bioenergetic regulations as “Donators as water molecules + ADP + Pi +  $H^+$  + nH + memb.space= ATP + nH +  $O_2$  formation and the shortage of membrane redox potentials three - state line system, lack of  $O_2$  acceptor utilization regulations” to more powerful energy accumulating systems as “Donators (glucose, aminoacids, fatty acids) + membrane redox potentials three - state line system + acceptor as  $O_2$  + ADP + Pi +  $H^+$  + nH + memb.space = (ATP + heat energy) +  $H_2O$  + nH + matrix +  $CO_2$ ” (Ambaga and Tumen-Ulzii, 2015), which had give to living cells the possibility to functioning in the whole organism level.



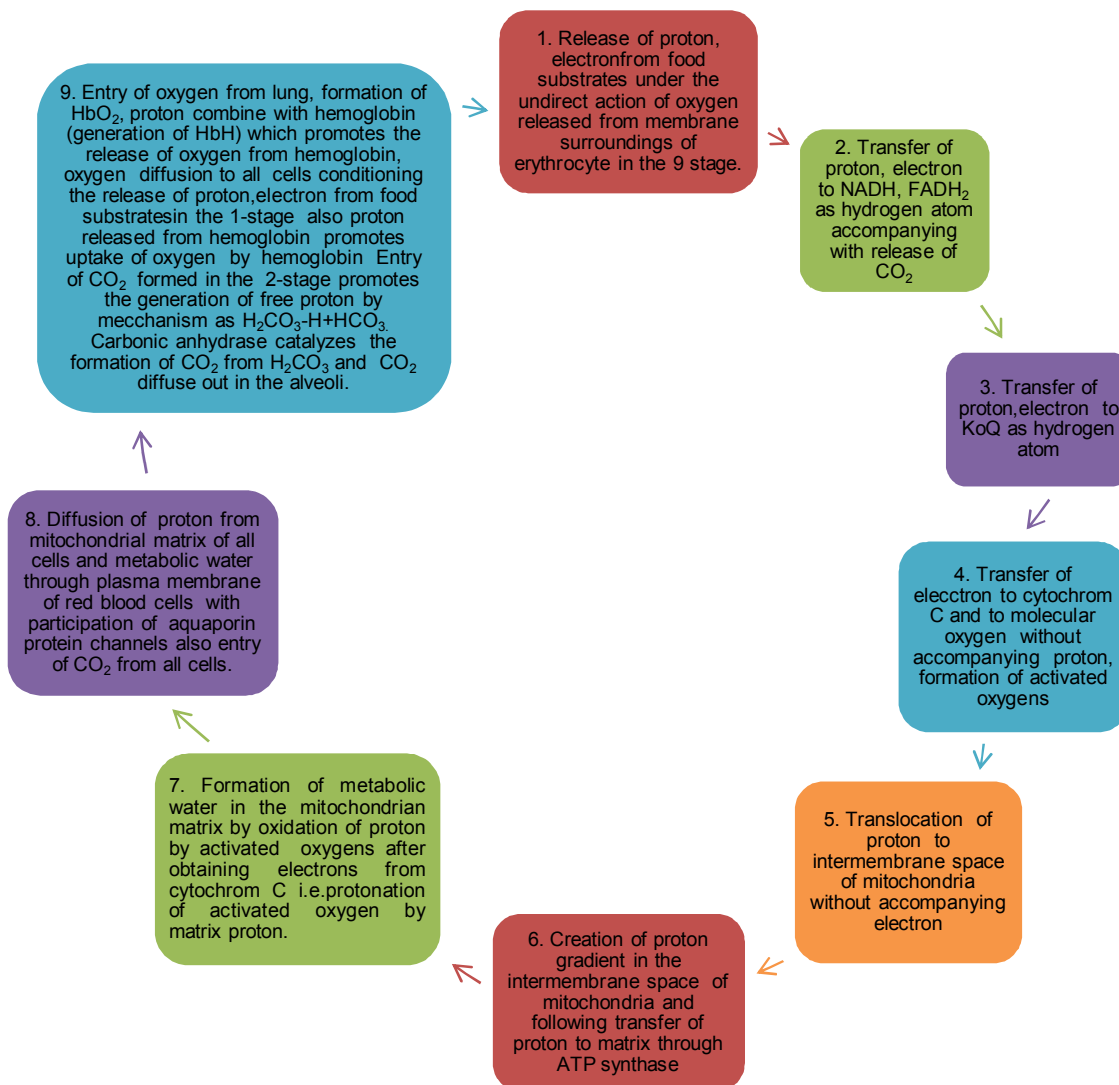
The normal functioning of energy conserving systems have been connected with the constant delivery of donors-foods molecules and oxygen molecules to “Donators + membrane redox potentials three - state line system + O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy ) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>” (Ambaga and Tumen-Ulzii, 2015) system.

The formation of food taking system as gastrointestinal organs had been conditioned by biological requirements for constant delivery of donors-food molecules to “Donators + membrane redox potentials three - state line system + O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy ) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>”.

Also constant delivery of O<sub>2</sub> molecules to “Donators + membrane redox potentials three - state line system + O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>” system had been result to the formation of oxygen taking system as respiratory organs.

Beside constant delivery of donors - food molecules and O<sub>2</sub> molecules to “Donators + membrane redox potentials three - state line system + O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>” systems, existed in 14 trillion cells had been led to the formation of Donators and O<sub>2</sub> molecules transporting system as cardiovascular organs.

Formation of free protons and nitrogen toxic products in membrane redox potentials three - state line system, included to “Donators + membrane redox potentials three - state line system + O<sub>2</sub> + ADP + Pi + H<sup>+</sup> + nH + memb.space = (ATP + heat energy) + H<sub>2</sub>O + nH + matrix + CO<sub>2</sub>” systems, existed in 14 trillion cells had been led to the formation of acid-base regulation system and toxic nitrogen compounds eliminating renal system - organs.



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

The formation of endocrine system, organs had been conditioned by biological requirements for the regulation of normal intensity of proton and electron conductance within “Donators + membrane redox potentials three - state line system +  $O_2$  +  $ADP$  +  $P_i$  +  $H^+$  +  $nH$  + memb.space = (ATP + heat energy) +  $H_2O$  +  $nH$  + matrix +  $CO_2$ ” systems, existed in 14 trillion cells.

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