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ASIAN JOURNAL OF SCIENCE AND TECHNOLOGY

ISSN: 0976-3376

Asian Journal of Science and Technology
Vol. 14, Issue, 01, pp.12374-12377, January, 2023

RESEARCH ARTICLE

THE QUESTION OF ELUCIDATION OF EIGTH AND NINTH STAGES OF THE MEMBRANE REDOXY POTENTIAL THREE STATE DEPENDENT 9 STEPPED FULL CYCLE OF PROTON CONDUCTANCE IN THE HUMAN BODY AND THE POSSIBILITY TO DRIVE THEIR DIRECTIONS

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ARTICLE INFO

Article History:
Received 19th October, 2022
Received in revised form
20th November, 2022
Accepted 19th December, 2022
Published online 30th January, 2023

Keywords:
Respiratory Membrane,
Pulmonary circuit, Respiring tissue.

ABSTRACT

The possibility to drive the membrane redoxy potential three state dependent 9 stepped full cycle of proton conductance in the favourable direction became a more clear after making the new interpretation relating to eighth and ningh stages of closed 9 staged cycle of proton, electron conductance. The new interpretation as follows as Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane, Pulmonary circuit have been distinguished by oxygen uptake from alveolar air -under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism and gives the possibility to drive and regulate the intensity of proton flow dependent metabolism reaction during diabetes mellitus and hypercholesterinemia to more usefull needed direction because we elucidate in which place of cells are existed driving point of regulations subjected to action of such kinds of manipulation and medicaments.

Citation: ***Ambaga, M., Tumen-Ulzii., A. and Buyantushig, T.*** **2023.** "The question of elucidation of eigth and ninth stages of the membrane redoxy potential three state dependent 9 stepped full cycle of proton conductance in the human body and the possibility to drive their directions", *Asian Journal of Science and Technology*, 14, (01), 12374-12377.

INTRODUCTION

It is existed a close relationship between following two expressions as Life has become dependent from presence of protons and electrons which were formed during the events called Big Bang 15 years ago and a expressions as the presence of protons from peripheral tissues favors the formation of salt bridge in histidine residues of hemoglobin (Harpers , p.54) . "Donators + membrane-redox potentials three-state line system + O_2 + ADP + Pi + H^+ + nH + membrane space = (ATP + heat energy) + H_2O + nH + matrix + CO_2" reaction medium, existing in the full 9 stepped cycle of proton conductance inside human body (proposed by M. Ambaga), serves the role of main driver to drive the reaction to desired direction needed to stay healthy and to cure patients. Untill now we can not drive and regulate the intensity of metabolism reaction during diabetes mellitus and hypercholesterinemia to more use full needed direction because we do not know in which place of cells are existed driving point of regulations subjected to action of such kinds of manipulation and medicaments. Revealed by us the membrane-redox potentials three-state line system is one of more important member of proposed by us the full 9 stepped cycle of proton conductance inside the human body and one of these places of cells, which easily subjected to action of manipulation and medicaments as driving point to conduct the usefull favorable direction of metabolism reactions during diabetes mellitus and hypercholesterinemia. The ethodological basis of this new procedure became a more clear after making the new interpretation relating to eighth and ningh stages of closed 9 staged cycle of proton, electron conductance as 9-th stage - Respiratory membrane - Pulmonary circuit-increase of oxygen uptake from alveolar air - under effect of increased bicarbonate entry by bicarbonate/chloride ion shift mechanism, leading to increase of HbO2 formation, meanwhile, 8-th stage - Respiring tissue - Pulmonary circuit -oxygen uploading by bicarbonate / chloride ion shift mechanism, Release of oxygen from HbO2 - under effect of exit of bicarbonate and chloride ion entry shift mechanism, leading to increase of oxygen in a mitochondrial - 6-th stage , gives the possibility to find the scientific relationship between a expressions as Life has become dependent from presence of protons and a expressions as the presence of protons from peripheral tissues favors the formation of salt bridge in histidine residue of betta subunits.

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RESULTS AND DISCUSSION

The possibility to drive the membrane redoxy potential three state dependent 9 stepped full cycle of proton conductance in the favourable direction became a more clear after making the new interpretation relating to eighth and ningh stages of closed 9 staged cycle of proton, electron conductance.

The new interpretation as follows as Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane , Pulmonary circuit have been distinguished by oxygen uptake from alveolar air -under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism gives the possibility to drive and regulate the intensity of proton flow dependent metabolism reaction during diabetes mellitus and hypercholesterinemia to more use full needed direction because we elucidate in which place of cells are existed driving point of regulations subjected to action of such kinds of manipulation and medicaments.

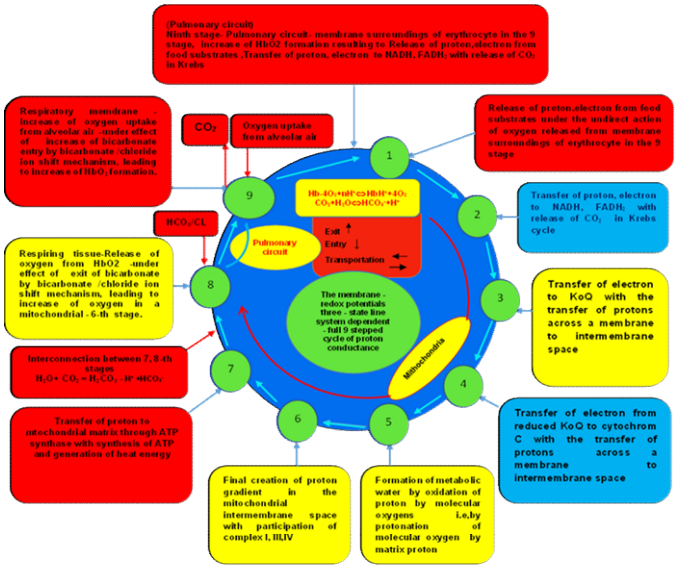

Figure 1. The final variant of closed cycle of proton conductance inside human body after making elucidation in the level of 8-the and 9-the stages of proton conductance of Pulmonary circuit location

This is after making the elucidation relating to interconnection between a first 1-7 stages of proton conductance of mitochondrial location and 8-the stage of proton conductance of Pulmonary circuit location and also, the interconnection between 8-the stage of proton conductance of Pulmonary circuit location with 9 -th stage of proton conductance of Pulmonary circuit location and interconnection between following, subsequent 1-stage of proton conductance of mitochondrial location with previous, preceding, foregoing 9-the stage of Pulmonary circuit location during evolution development of living organisms:

First stage: Release of proton, electron from food substrates under the undirect action of oxygen released from membrane surroundings of erythrocyte in the 9 stage. Second stage - Transfer of proton, electron to NADH, $FADH_2$ with release of CO_2 in Krebs cycle

Third stage: Transfer of electron to KoQ with the transfer of protons across a membrane to intermembrane space

Fourth stage: Transfer of electron from reduced KoQ to cytochrom C with the transfer of protons across a membrane to intermembrane space

Fifth stage: Formation of metabolic water in the mitochondrian matrix by oxidation of proton by molecular oxygens i.e, by protonation of molecular oxygen by matrix proton with participation cytochrome C oxidase within complex IV

Sixth stage: Final creation of proton gradient in the mitochondrial intermembrane space with participation of complex I, III, IV.

Seventh stage: Transfer of proton to mtochondrial matrix through ATP synthase with synthesis of ATP and generation of heat energy

Eighth stage: Respiring tissue - Pulmonary circuit -oxygen uploading by bicarbonate / chloride ion shift mechanism, release of oxygen from HbO2 - under effect of exit of bicarbonate by bicarbonate / chloride ion shift mechanism, leading to increase of oxygen in a mitochondrial - 6-th stage .

9. Ninth stage - Respiratory membrane - Pulmonary circuit, the increase of oxygen uptake from alveolar air under effect of increased bicarbonate entry by bicarbonate / chloride ion shift mechanism, leading to increase of HbO2 formation, resulting to release of proton, electron from food substrates under the undirect action of oxygen released from membrane surroundings of erythrocyte in the 8-th stage of proton conductance, transfer of proton, electron to NADH, $FADH_2$ with release of CO_2 in Krebs cycle. We can create all the variants of useful reaction background forms of proton dependent metabolic reactions by changing the membrane - redox potentials three-state line system of the full 9 stepped cycle of proton conductance inside the human body as follows:

- The intensification of the process , occurred in Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane , Pulmonary circuit , resulting to increase of oxygen uptake from alveolar air - under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism could be used to treat the overweight and to increase the efficacy of immunostimulatory therapy
- The maintainance of the prevalence of fluid alpha state with high oxy potentials , through intensification of processes in Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane , Pulmonary circuit, resulting to increase of oxygen uptake from alveolar air -under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism , leading to increase of HbO2 formation, resulting to Release of proton,electron from food substrates under the undirect action of oxygen released from membrane surroundings of erythrocyte in the 8-th stage may be used also to treat the overweight, diabetes mellitus and hypercholesterolemia
- The maintainance of increased ratio of oxidized CoQ: reduced HADH and oxidized cytochrome C:reduced CoQ at the 3- rd and 4- th stages through intensification of processes in Eighth stage of 9 staged close cycle of proton conductance in the location of Respiring tissue , Pulmonary circuit leading to oxygen uploading by bicarbonate / chloride ion shift mechanism , in the form of release of oxygen from HbO2 -under effect of exit of bicarbonate by bicarbonate / chloride ion shift mechanism , leading to increase of oxygen in a mitochondrial - 6-th stage ,all these reactions may be used to treat the
- The creation of intensification in the level of Ningh stages Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane , Pulmonary circuit, resulting to increase of oxygen uptake from alveolar air -under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism , leading to

increase of HbO2 formation, resulting to Release of proton, electron from food substrates under the undirect action of oxygen released from membrane surroundings of erythrocyte in the 8-th stage has been leaded to the increase of oxy potentials with accompanying decrease of cholestrol concentration.

- Also , the creation of intensification in the level of Ningh stages Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane, Pulmonary circuit, resulting to increase of oxygen uptake from alveolar air -under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism, leading to increase of HbO2 formation, resulting to Release of proton, electron from food substrates under the undirect action of oxygen released from membrane surroundings of erythrocyte in the 8-th stage has been leaded to decrease the cell division rate during cancer pathology
- The maintainance of increased ratio of oxidized CoQ: reduced HADH and oxidized cytochrome C:reduced CoQ at the 3-rd and 4-th stages through intensification of processes in Eighth stage of 9 staged close cycle of proton conductance in the location of Respiring tissue, Pulmonary circuit leading to oxygen uploading by bicarbonate / chloride ion shift mechanism, in the form of release of oxygen from HbO2 -under effect of exit of bicarbonate by bicarbonate / chloride ion shift mechanism, leading to increase of oxygen in a mitochondrial - 6-th stage could be key factors to help body weight loss during diabetes mellitus, hypercholesterolemia and obesity
- Intensity of oxygen diffusion owing to the creation of intensification in the level of Ningh stages level of Ningh stages Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane, Pulmonary circuit, resulting to increase of oxygen uptake from alveolar air -under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism, leading to increase of HbO2 formation, resulting to Release of proton, electron from food substrates under the un direct action of oxygen released from membrane surroundings of erythrocyte in the 8-th stage has a huge impact on release of hydrogen atom (proton and electron together) from donators existing in the first stage of the full 9 stepped cycle of proton conductance inside human body, this favorable situation may be used to treat diabetes mellitus, hypercholesterolemia and obesity
- The intensification of the process , occurred in Ninth stage - of 9 staged close cycle of proton conductance in the location of Respiratory membrane, Pulmonary circuit, resulting to increase of oxygen uptake from alveolar air - under effect of increase of bicarbonate entry by bicarbonate / chloride ion shift mechanism could be used to increase of immunostimulatory activity of some drugs

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