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Editorial

Mitochondrial Activities Regulate G-actin Filaments, Regulate TXA2 Subunits, and VEGF-A Subunits Synthesis , Through Expressing its Anti-Inflammatory Enzymes, which are Playing Imp. roles in Regulating Muscle Contractions, Increasing Anti-Inflammatory Cycles, and the Strengthen of Heartbeats

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EDITORIAL NOTE

Mitochondria are dynamic organelles contain inner and outer membranes amino acids genes, that move, fuse, and divide according to the needs of the cell through stimulation from ribosomal genes activities for responding and activities of biological molecules in cells tissue metabolism .

Mitochondria have a characteristic double membranes structure and function between inner and outer membranes in slightly and widely activities. The inner membrane is fully controlled by ribosomes RNAs but outer membrane is synthesised and controlled by inner membrane long-OPA1 gene (L-OPA1 gene) where outer membrane manly synthesised and controlled by mitochondrial inner membrane(MIM) to implement the functions of the inner membranethe (MIM) and running its programed processes. .

The outer membrane is formed through fusion of s-OPA1 (which divided through the effects of GTPase started from ribosomal functions) and MFN2 gene (which synthesised from inner OPA1 gene membrane) , whereas inner membrane is mainly contain main long OPA1 gene that is regulated by rRNAs activities through specific stimulating processes (from ATPase loops in G-actin and in ribosomes) that will be cleaved to L-OPA1 and s-LOP1 games by the effects of GTPase which synthesised from ribosomal functions.

The Proteins involved in mitochondrial outer membrane fusions is 2nd step for outer membrane synthesis (after the 1st steps fission step) is : mitofusin 2 (MFN2 , dynamin-related GTPase OPA1 (which encoded by the same gene which encode the inner membrane L- OPA1 gene) through the regulation of ribosomal ATPase functions , and F-box and leucine-rich repeat.

The involving of r-ATPase, F-box, and leucine rich repeat nucleotides in the synthesis of outer mitochondrial membrane is indicating the values and the necessities of r-ATPase and leucine amino acids and its mitochondrial synthetase enzyme regulations in mitochondrial functions for regulating imp activities in tissue cells metabolic cycles, which responsable for re-synthesis the pyrimidine nucleotides from purines nucleotides in vivo, and indicates the values of the presence of its pyrimidine nucleotides in mitochondrial inner and outer membrane genes , and for its repairs.

Due to presence and avaliablities of inflammations in blood vessels and in interstitium fluid will stimulate actin filaments to generate its polarized active isoforms which will transmitted through filaments to cells then to inner cells components for stimulating ribosomes and mitochondria activities for expressing its mitochondrial anti-inflammatory enzymes which are : synthase, phospholipase, and Cox2, and synthetase enzymes, which I consider them as anti-inflammatory regulating enzymes where can act on inflammations molecules and toxic granules for later producing TXA2 subunits then through feedback in vivo will synthesis the VEGF-A subunits for completing the effects on inflammations molecules, and then for re-stimulating G-actin filaments again for endothelin-1 re-synthesis and for reactivate PPARs genes proliferations activities through reactivating MAPK pathways which considered to be very necessary for resynthesis cytokines through the regulation of the synthesised TXA2 "alpha" subunits and VEGF-A "alpha" subunits.

Once the effects of mitochondrial enzymes (ME) on inflammations molecules is done will lead to TXA2 subunits productions which through its feedback will generate VEGF-A subunits where both TXA2 and VEGF-A subunits considered as strong anti inflammatory alpha subunits tools for regulating the anti-inflammatory beta cytokines synthesis for completing the effects on inflammations molecules in some other cells tissue and in their interstitium fluid where are considered as a protection from many health problems.

VEGF-A subunits are considered to be one of the main strong anti inflammatory tools, which can be synthesised from both directions :1st/ from G-actin filaments active polarized isoforms and endothelin-1 synthesis pathways, and 2nd/ from the acting

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of mitochondrial enzymes on inflammation molecules for TXA2 production then through its feedback will produce VEGF-A subunits , and it is considered as the production of active VEGF-A alpha subunits are the basis of the contractions and relaxations of muscles, veins, and arteries and also considered to be main for the TNF-α subunits re-expression for blood platelets re-synthesis, for Autophages functions, for PPARs genes activities, and for blood functions.

Endothelial cells (ECs) activities represent the major cell type that interacts for developing anti-inflammatory subunits : TXA2, VEGF, and TNF-α subunits tools, and for developing organs including the pancreas tissue cells and their activities started throughout stimulation between G-actin filaments and ATPase loops (ribosomal and G-actin ATPase loops) for re generations polarized active isoforms and transmitting them to inner cells and to interstitium fluid between cells for re-stimulating ribosomes activities and mitochondrial functions.

The activations to mitochondria occurs from ribosomes, from G-actin, and from lysosomes security granules (which stored in some active cells as autophagy) directly or indirectly,, where can be started by stimulating the G-actin filaments isoforms activities to produce active polarized isoforms signals "PIS" to be sent across G-actin filaments as polarized signals isoforms "PSI" to endothelial tissue cells "ECs" and to organ tissue islets for producing pro-endothelin-1 and for VEGF-A subunites synthesis. Endothelin-1 active genes and VEGF-A alpha subunits are considered to be strong ani-information tools for purifying blood and interstitium fluid and veins from inflammation toxicity and from viral toxicities and also considered to be necessary for the muscles contractions through the regulation of MAPK pathways functions.

Using of Pentapeptide active Repeat Proteins (PARP) for mitochondrial repair containing specific active amino acids sequences of :

Arg, lys, Ser, Gly, Leu, Gly Gly, Phe Leu, Arg, Thr,Leu Ser, Leu Phe, Gly, Gly, Gly, Tyr, Île,, Ser, Thr, Tyr Gly, Gly , Phe, Leu, Arg, isoleucine , Can be used as mitochondrial ribosomal active genes for inner mitochondrial membrane L-OPA1 gene repair and for the MFN2 gene synthesis for outer mitochondrial membrane synthesis, and in the main time the PARP will help for reactivating brain enkephalin leu-pentapeptides, and will activate sestrin re-synthesis in liver .

VEGF-A can be synthesised from endothelin-1 through the regulation and stimulations to G-actin isoforms activities and through the regulations of ribosomes and mitochondrial activities, or can be synthesised throughout the fast effects of mitochondrial enzymes on inflammations molecules, where can used as recombinant monoclonal antibody, which offers several advantages of activities including: Improved sensitivity and specificity due to its strong relations and to G-actin filaments activities and due to its strong effects on inflammations molecules, but mainly due to valuables of its contents of pyrimidine nucleotides .

Where the results of the effects of mitochondrial enzymes and the effects of TXA2 and VEGF-A on inflammations can reactivate mitochondrial activities again for re-functioning the Prostacyclin molecules to prevent the protein, fatty acids, and G-protein aggregations .

The anti-inflammatory cytokines reflect the generation of strong effects on inflammations molecules by the effective phospholipase ,TxA2 synthase, and synthetase mitochondrial enzymes , that will produce TXA2 subunits which can through its feedback cycles will activate the VEGF-A subunits synthesis, for recreate the back processes for endothelin-1 re-synthesis and resending back signal stimulated messages to G-actin filaments for resynthesis endothelin-1 for cleaning tissue and vains from toxicities thus TXA2 through mitochondrial activities can be synthesised and through its feedback cycles will regulate VEGF-A synthesis, and has the ability to re-stimulate (as sending a back genes messages) message to G actin filaments through VEGF-A subunits productions to stimulate the endothelin-1 synthesis.

Where the re-feedback activities which started by TXA2 alpha subunits for back ET-1 resynthesis is considered as the programed communication cycles (PCOC) for sending and receiving genes or isoforms messages between cells and to endothelial tissues for adjusting anti-inflammatory cycles ,and for PPARs genes functions reactivation, and for ET-1 resynthesis which is so necessary for purifying blood vessels too and including the removal of inflammations molecules from tissues interstitium fluid .