A

19/05/2021

My new work

OPA1 mitochondrial outer membrane genes is the main regulator for autophagy productions & it is repaired by ROR-alpha , ROR-beta &ROR-alpha gamma subunits. Which each can form own PPARs {alph, beta, & gamma }

promotes survival, fatty acid gamma-oxidation, &uncoupled respiration.

Repair and activat astrocytes

Beta-oxidation

Fatty-acyl-CoAs

Gamma-oxidations

PPARs-alpha +ROR-alpha

Acyl-CoA phospholipase

Phospholipase

BCL6

Fatty-acyl-CoA-Phospholipase

Activate the lungs and pancreas beta-cells development

Activate Beta-cells

Activate

Linear active macrophages

Beta-oxidation

Activate beta-subunits production

Linear Treg1

Linear Treg2

Phospholipase

Neutrophile reactivation & repair

Netrin-1

IL-beta +TNF-beta

Synthase

Phorbol ester

Linear Beta genes+beta subunits { IL-10, IL-35 and TGF-beta}

Cells proliferations + antigen synthesis include Circular Treg antigen synthesis (where IL-10, IL-35 and TGF-beta stored in Treg cells)

Increasing in fatty-acyl-CoA-phospholipase (increasing in[AGA, AAG])

Leptin (LP) {which is protein hormone}

Activate

Phorbol ester

PPARs-beta

BCL10 gene

Activate linear macrophages Activate Beta-cells

Stimulate triglyceride storage, Thiazolidinediones (are used as hypoglycemia)

Hydrophobic fatty&amino-acids In gamma-subunits molecules

Carbohydrate digestions + Lipid digestions

TNF-beta + Thromboxane-beta

PPARs-beta

Acyl-CoA-phospholipase

{Phospholipase }

Activate antigen &phospholipid synthesis

Fatty-acyl-CoA-Synthase

Synthases

ATPase +Mito-COX+ Mito-Synthetase Enzymes

ROR-gamma

ROR-beta

ROR-alpha

PPARs-alpha

OPA1 {Phospholipase}

PPARs-beta

{Can produce PPAR-gamma during lipid & carbohydrate metabolism, Stored in peroxisomes or used for Beta productions by effect of symthases}

Slightly controlled ATPase

OPA1{synthetase}

OPA1{synthase}

OPA1{Phospholipase}

OPA1 {synthase }

PPAR-gamma

ATPase +COX + Mitochondrial OPA1 activity secreate

Three Fatty-Acyl-Coenzyme-A isoforms each bind to one of mitochondrial enzymes (RORs isoforms synthesis)

ATPase

FOX genes

mito-enzymes {synthetase +Phospholipase +synthase}

ATPase +COX

Pro-nutrients-mTOR

Synthetase +synthase + MST1/2 (PSTT Kinase) & Lats1/2 (PSTCk) kinases Through cysteine (TGC, TGT)

Fox+pro-nutrients-mTOR +phosphorylations (ATPase+COX) Hippo pathway

TAZ (ROR-gamma)

YAP (ROR beta)

Phospholipase

regulates normal developments of skin, muscle, blood cells, lung and liver

It has been demonstrated that YAP/TAZ is inactivated under low glucose condition or by inhibiting glycolysis (by synthetase inhibition) while it is activated(in response to high levels of glucose in avaliablity of synthetase mito-enzyme)

Inhibition in carbohydrate digestions

Deficiency in Synthetase or in cysteine production by synthetase

Mito-Synthetase

With ATPase regulations

Over Increasing in sulfur molecules

Over Increasing developments of skin, muscles, lung cells and liver

Mutated acyl-CoA-synthetase &mutated acyl-CoA-synthase &mutated TAZ & YAP

Any deficiency in hydrophobic acids will be adopted by synthetase which will convert purines to pyrimidine during carbohydrate digestions

Diabetes problem, liver disease, cancer, dysfunction in brain activities & dysfunction in enkephalin pentapeptides reactivations

mRNAs directed to ribosomes for post translation modification(PIM)

By/Ashraf Marzouk El Tantawi
Biomedical molecular studies