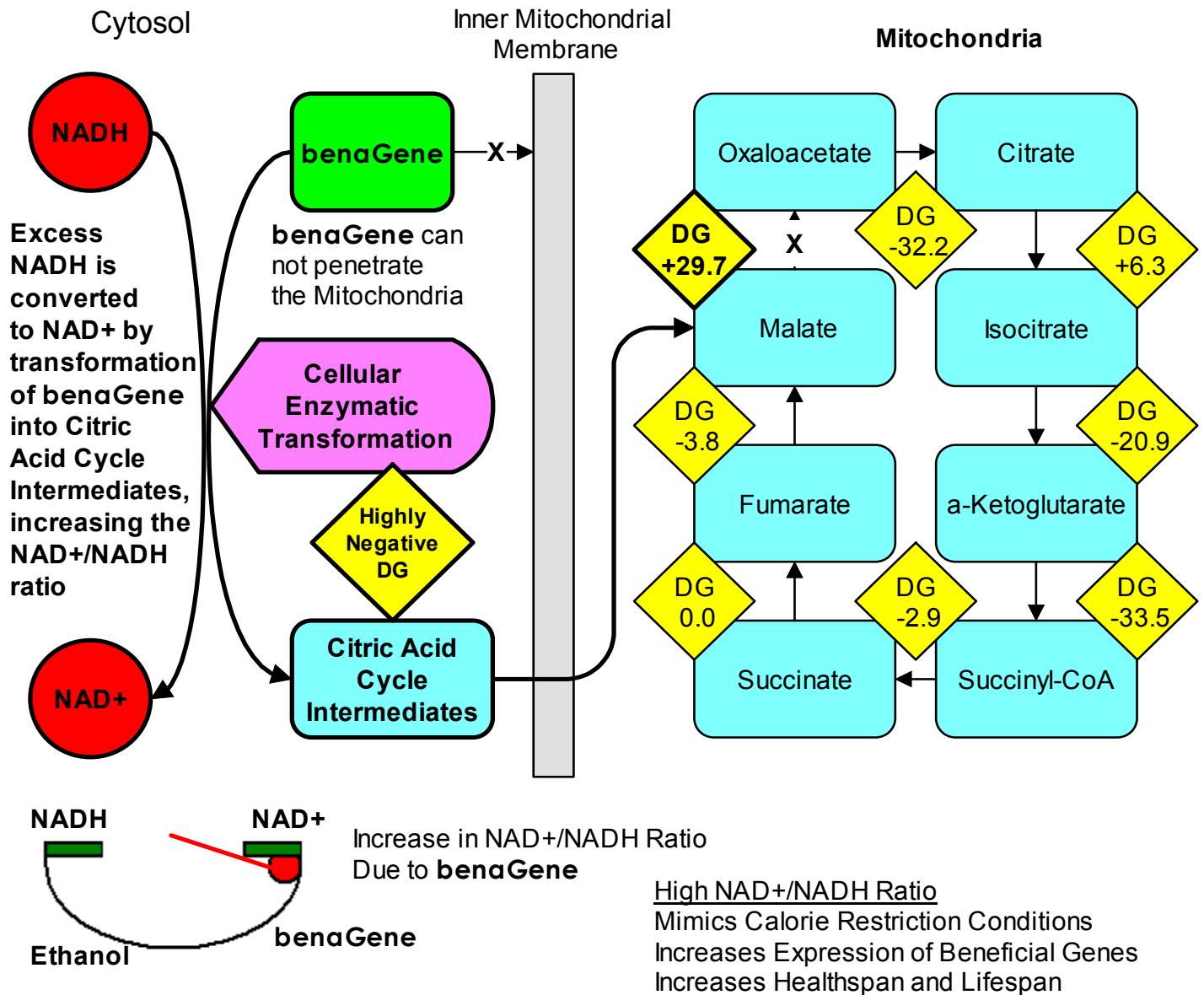


benaGene

Biological Diode Compound



BIOLOGICAL DIODE

benaGene increases the NAD⁺/NADH ratio. The increased ratio acts as a cellular signaling mechanism to express beneficial genes for increased Healthspan and Lifespan.

Supplied extra-cellular **benaGene** penetrates the cell membrane but can not penetrate the Mitochondrial membrane. **benaGene** converts to Citric Acid Cycle Intermediates in the cytosol through existing cytosol enzymes. The produced Citric Cycle Intermediates diffuse into the Mitochondria, but are only slowly converted by the Citric Acid Cycle due to the high positive delta G of the reaction. The Biological Diode created keeps the NAD⁺/NADH ratio higher than would normally occur, mimicking the internal cellular conditions of Caloric Restriction. The mimic of calorie restriction conditions increases beneficial gene expression and clinically increases Healthspan and Lifespan in laboratory test animals.