J Diabetes Metab 2018, Volume 9
DOI: 10.4172/2155-6156-C2-082

Glycosylation and PARP polymerase activities as b: Biomarkers and drug targets in cancer diseases

Luis Cruz Rodriguez
Paris Diderot University, France

DNA metabolism in cancer is distinctive from normal cells due to specific DNA reprogramming process which generate specific genetic variations. These signature variants can be used as selective targets for the discovery of new drugs aiming to treat cancer diseases. It is well known that, DNA repair mechanisms, such as base excision repair (BER) are critical for the maintenance of the mitochondrial genome during cancer., In order to identify new biomarkers as potential drug targets to treat cancer we explored the presence of specify genetic variants of the BER repair system in Drosophila melanogaster, a model of DNA damage. Combining the use of pure mitochondrial fractions and a multiplexed oligonucleotide cleavage assay on a microarray, we found a large range of enzymatic glycosylase activities in aged cells. We also found an increase in PARP polymerase activity in BER knock-out flies. Our results suggest that glycosylation and PARP polymerase activities are potential biomarkers and drug targets for the discovery of drugs aiming to treat cancer diseases..

luis.cruzrguez@gmail.com