Genetic Background of Ãƒ ÂŽÃ‚Â² Thalassemia Modifier: Recent Update

Title	Genetic Background of Ãƒ ÂŽÃ‚Â² Thalassemia Modifier: Recent Update
Author Order	of
Accreditation	2
Abstract	Thalassemia has become major health problem among developing countries. Genetic background which contain enormous mutations and variations have lead in clinical problem differences.The genetic basis of thalassemia, beta specifically, is mutations of the gene encoding the Ãƒ ÂŽÃ‚Â² chain of the hemoglobin (Beta-Globin, HBB). However, today it is known that abnormalities in this gene do not necessarily determine the clinical appearance of Ãƒ ÂŽÃ‚Â² thalassemia patients.A set of genes has been found that can modify the primary Ãƒ ÂŽÃ‚Â² thalassemia disorder. Secondary modifier contains genes that have been associated with elevated levels of HbF and improvement ratio of Ãƒ ÂŽÃ‚Â± / Ãƒ ÂŽÃ‚Â² globin chain. The genes involved are HBA, HBG, BCL11A, HBS1L-MYB and other cofactor genes regulating erythropoiesis. Tertiary genetic modifier comes from other genes related to the disease severity including iron metabolism, redox activity, and clinical complications. The review aims to provide the latest updates regarding the known Ãƒ ÂŽÃ‚Â² Thalassemia modifier genes and some other genes involved in the changes of the clinical manifestations.
Publisher Name	Faculty of Medicine, Diponegoro University
Publish Date	2018-07-31
Publish Year	2018
Doi	DOI: 10.14710/jbtr.v4i1.2541
Citation	
Source	Journal of Biomedicine and Translational Research
Source Issue	Vol 4, No 1 (2018): July 2018
Source Page	12-21
Url	https://ejournal2.undip.ac.id/index.php/jbtr/article/downloadSuppFile/2541/552
Author	Dr Dr LANTIP RUJITO, M.Si.Med