Leukemia/lymphoma-associated gene fusions in normal individuals

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ABSTRACT. Hematopoietic neoplasias are characterized by recurrent chromosomal aberrations that result in the formation of gene fusions and the subsequent expression of chimeric proteins with unique properties. However, in recent years, different lymphoma/leukemia-associated rearrangements, such as BCR/ABL, IGH/BCL2, ETV6/RUNX1 and MLL duplications, have been detected in healthy individuals. The presence of these rearrangements indicates that such translocations can be generated in normal hematopoietic cells without apparent oncogenic consequences. This article reviews and discusses the data available in the literature.

Key words: Gene fusions; Genomic instability; Leukemia; Lymphoma; Healthy individuals