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Editorial

A New History: The 2016 Revision of the WHO Classification of Tumors of Hematopoietic and Lymphoid Tissues

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Classification is the language of medicine: diseases must be described, defined and named before they can be diagnosed, treated and studied. However, a critical feature of any classification of diseases is that it be periodically reviewed and updated to incorporate new information [1].

For many years the diagnosis of leukemia was based solely on pathologic and cytological examination of bone marrow and peripheral blood smears; however, this classification does not always reflect the genetic and clinical diversity of the disease. In this way, the World Health Organization (WHO) proposed a classification to recognize and classify different subgroups of leukemia through clinical, morphological and genetic correlation.

The "WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues" is one of the "blue book" monographs published by the International Agency for Research on Cancer (IARC; Lyon, France), created in collaboration with the Society for Hematopathology and the European Association for Haematopathology.

Eight years have elapsed since the current fourth edition of the monograph was published in 2008, and remarkable progress has been made in the field in this time period. Despite this, a truly new fifth edition cannot be published for the time being, as there are still other volumes pending in the fourth edition of the WHO tumor monograph series. Therefore, the Editors of the "WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues," with the support of the IARC and the WHO, decided to publish an updated revision of the fourth edition that would incorporate new data from the past 8 years which have important diagnostic, prognostic, and therapeutic implications [2].

The major changes in the classification and their rationale are presented by Swerdlow S. et al.[3] and Arber D. et al. [4] for lymphoid and myeloid neoplasm respectively, however it's important to note that although some provisional entities have been promoted to definite entities and a few provisional entities have been added to the revised WHO classification, no new definite entities were permitted according to IARC guidelines.

The current revision is a much needed and significant update of the 2008 WHO classificationto incorporate clinical features, morphology, immunophenotyping, cytogenetics, and molecular genetics to provide better diagnostic categories and criteria, together with biological and clinical correlates, and facilitate state-of-the-art patient care, future therapeutic advances, and basic research in this field. The WHO effort to keep up-dating the classification will continue on, and hopefully provide a model of cooperation between clinicians, pathologists, scientists and hematologists from all over the world.

In the field of leukemia, many questions remain unanswered, however, this update is the first step toward a closer integration of genetic data into a clinicopathological classification. Based in this, the journal "Austin Leukemia" aims to promote research communications and provide a forum for doctors, researchers, physicians and healthcare professionals to find most recent advances in all areas of Leukemia that could be the basis for future classifications.

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