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Editorial

Hemato Keeps You Updated on the Research in Hematology

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1. Introduction

Hemato (ISSN 2673-6357) is an open access, peer-reviewed journal that publishes original articles and reviews highlighting important advances in the fundamental areas of Hematology. *Hemato* is a young journal (established in 2020) but has had an excellent start under the leadership of four Section Editors and a large number of Editorial Board Members (https://www.mdpi.com/journal/hemato/editors). It is a journal for specialists and researchers from various hematology-oriented disciplines. The journal includes seven sections (Table 1) and provides a home for papers of high quality and interest to the broad hematologic scientific community. It welcomes fundamental and applied multidisciplinary research and contributions that describe the connection between hematology and immunology, genetics, genomics, molecular pathology, artificial intelligence, digital imaging, and information storage/processing.

Table 1. *Hemato* sections.

Chronic Myeloid Disease (https://www.mdpi.com/journal/hemato/sections/chronic_myeloid_disease)
Coagulation (https://www.mdpi.com/journal/hemato/sections/coagulation); Section Editor: Dr. Grigoris T. Gerotziafas
Leukemias (https://www.mdpi.com/journal/hemato/sections/leukemias)
Lymphomas (https://www.mdpi.com/journal/hemato/sections/Lymphomas); Section Editor: Dr. Anna Sureda
Non-Neoplastic Blood Disorders (https://www.mdpi.com/journal/hemato/sections/non_neoplastic_blood_disorders)
Plasma Cell Disorders (https://www.mdpi.com/journal/hemato/sections/PCD); Section Editor: Dr. Laurent Garderet
Radiolabeled Blood Elements and Other Imaging Modalities (https://www.mdpi.com/journal/hemato/sections/radiolabeled_blood_elements); Section Editor: Prof. Dr. Alberto Signore

2. Results

The total number of publications so far is 145 (Volume 1, 2020: 11; Volume 2, 2021: 53; Volume 3, 2022: 52; and Volume 4, 2023: 29). The number of downloads reached a peak of 83,404 in 2022 for Volume 3.

Hemato published Special Issues on relevant topics in the field of hematology (see Table 2). These topics were either published between 2021 and 2023 or are currently being processed and in the open submission phase. In particular, two Special Issues (i.e., "Classification of Lymphomas and Hematological Neoplasia in the Era of Genomic Research: A Themed Issue in Honor of Dr. Elaine S. Jaffe" and "Advances in Amyloidosi: A Theme Issue in Honor of Prof. Dr. Giampaolo Merlini") collected more than 10 high-quality publications.

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Table 2. Main Special Issues between 2021 and 2023.

Special Issue Title
Advances in Amyloidosi: A Theme Issue in Honor of Prof. Dr. Giampaolo Merlini
Classification of Lymphomas and Hematological Neoplasia in the Era of Genomic Research: A Themed Issue in Honor of Dr. Elaine S. Jaffe
Waldestrom Macroglobulinemia and Related Conditions
Current and Upcoming Diagnostics and Prognostics in Multiple Myeloma
Memorial issue dedicated to Prof. Dr. Michele Baccarani: an Excellent Hematologist on Chronic Myeloid Leukemia

In addition, a "What's new" series was launched in 2022. Two papers have already been published within the sections Lymphomas ("Classification of B-Cell Lymphomas and Immunodeficiency-Related Lymphoproliferations: What's New?) and Leukemias ("What's New in the Classification, Diagnosis and Therapy of Myeloid Leukemias), focusing on recent WHO and ICC classifications [1,2].

Hemato was indexed by Scopus and Web of Science in 2023, which was very special for us. After four years of work, we have reaped the fruits of tenacity and high product quality.

3. Future Goals

Moving forward, we have a new goal in terms of article influence and content significance, and we are embarking on a new journey through recent developments, emerging trends, or important challenges within the field of hematology. We will try to effectively improve communications and organization with all Editorial Board Members, as well as include more young researchers and work on the country's diversity. We will also organize more webinars to provide a platform for collaboration within a specific community.

The *Hemato* 2024–2025 series will focus on recent scientific acquisitions in onco–hematology and the pros and cons. Each new scientific acquisition in medicine usually generates the development of biological and pathogenetic knowledge and often generates hope for its successful application in disease management. These new clinical applications, in turn, also yield a greater understanding of the involved disease and its classification reordering and diagnostic refinement. Soon, translational clinical studies with the use of new drugs and new therapies will be put in place to validate the clinical significance of the new scientific acquisition. After a certain period, critical evaluations of the real biological and clinical validity of the new acquisition will be carried out. In the event that its clinical impact is not confirmed, modifications that enhance its impact will be made, or other paths will be taken.

For this series, experimental researchers and clinical experts in the hematological field will be selected. They will offer their point of view regarding the topic, highlighting the pros and cons. The series will conclude with an Editorial, which summarizes the main comments offered by the experts and will outline the most probable future of the innovation discussed in the specific articles.

The first series will be formally launched at the beginning of 2024 and will have the following theme: "TME modulators in pathobiology and management of Hodgkin lymphomas and other B-cell lymphomas".

Among B-cell lymphomas (Figure 1), primary mediastinal large B-cell lymphoma, mediastinal grey zone lymphoma, and T-cell rich large B-cell lymphoma exhibit a TME similar to mixed cellularity classic. Hodgkin lymphoma or classic nodular sclerosis TME modulators may help Hodgkin lymphoma patients. They are capable of targeting a variety of cell types, such as regulatory T-cells, myeloid-derived suppressor cells, natural killer (NK) cells, and protumoral M2 macrophages, which promote immune suppression and immune exhaustion, making it difficult for tumor effector cells to kill malignant cells. By reversing immunosuppression and dysfunction, TME modulators, including checkpoint inhibitors, bispecific antibodies, and chimeric antigen receptor T-cells, might play a key role in the development of effective immunotherapeutic approaches (reviewed in [3]) (Table 3).

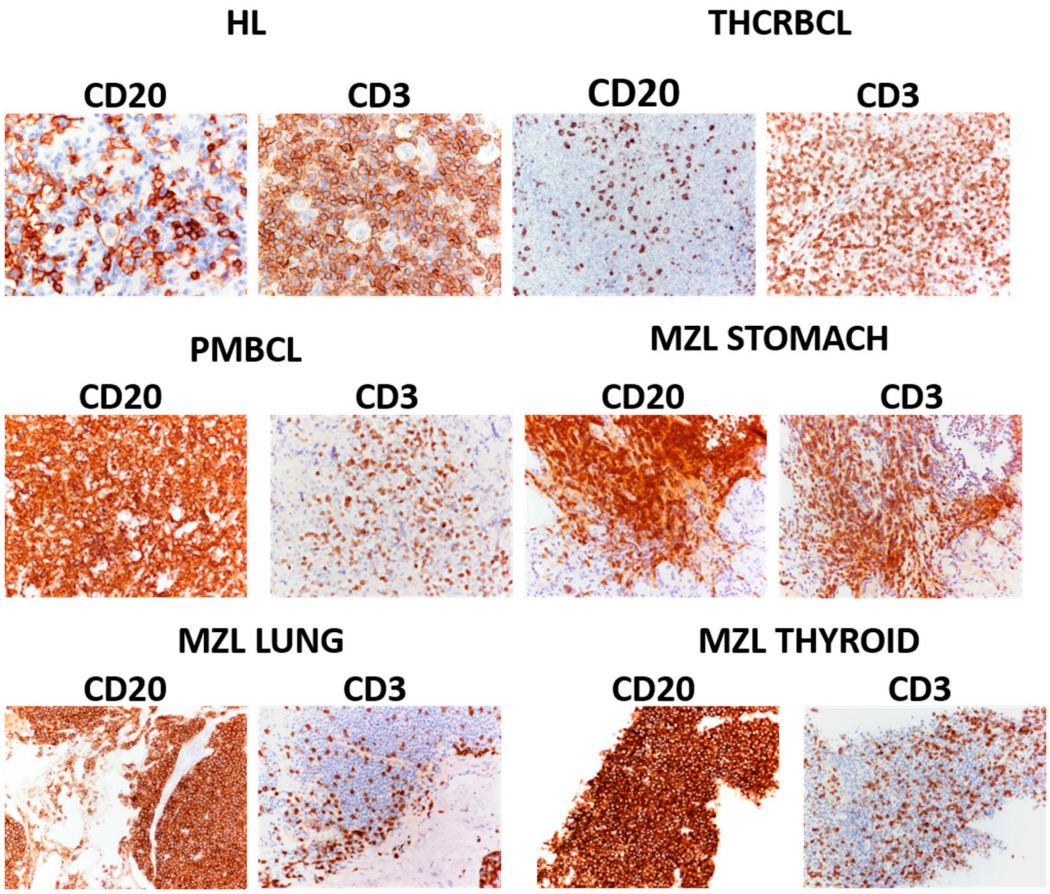

Figure 1. The composite figure shows CD20 and CD3 immunostaining in Hodgkin lymphoma (HL), two specific diffuse large B-cell lymphomas, primary mediastinal large B-cell lymphoma (PMLBCL), and T-cell/histiocyte-rich B-cell lymphoma (TCHRBCL) (Reprinted from Ref. [3]) and several marginal zone lymphomas (MZL). In all these lymphomas, tumor cells are immunostained for CD20, whereas their TME contains reactive infiltrates rich in $CD3^+$ T-cells.

Table 3. TME modulators and targets.

TME Modulators
Checkpoint blockade therapy
CAR T-cell
CD47/SIRP alpha
Bispecific antibodies
Targets
Regulatory T (Treg)-cells
Myeloid-derived suppressor cells
Natural killer cells
Pro-tumoral M2 macrophages

The second series will be launched at the end of 2024 and will have the following theme: immune deficiency/dysregulation-associated lymphoproliferative disorders. The papers should focus on classification and management.

Since 2001, immune deficiency-related lymphoproliferative disorders (LPD) have been subclassified based on the clinical setting in which they arise: (a) primary immune deficiency, (b) post-transplant, (c) HIV infection, and (d) other iatrogenic immune deficiency. The 2023 WHO Fifth Edition [4,5] introduces a standardized three-component basis for these lesions, specifically: (I) histopathologic diagnosis (hyperplasia, polymorphic LPD, and lymphoma in immunocompetent patients), (II) causally associated virus(es) (EBV and

KSHV8/HHV8) and (III) immune deficiency/dysregulation setting (Table 4). This series will focus on the classification of the immune deficiency and dysregulation lymphoid lesions based on the 2023 WHO Fifth Edition [4–6] and will relate this classification to the management of patients with these lesions, with a focus on HIV and post-transplant clinical settings. cART or discontinuation/reduction in immunosuppression is the current initial treatment of HIV-associated and post-transplant lymphoma, respectively. Novel therapies targeting the specific roles of EBV and KSHV in immune deficiency-related lymphomagenesis are currently being explored.

Table 4. Lymphoid proliferations and lymphomas associated with immune deficiency and dysregulation. Comparison of the WHO classification, fifth edition, and ICC 2022 classification.

WHO Classification, Fifth Edition	ICC 2022
Hyperplasia arising in immune deficiency/dysregulation is distinguished by: • Follicular proliferation; • Interfollicular and paracortical proliferations; • Plasma-cell hyperplasia; • Mononucleosis-like hyperplasia; • T-cell and histiocytic proliferations;	Non-destructive forms are distinguished by: • Florid follicular hyperplasia; • Plasmacytic hyperplasia; • Infectious mononucleosis;
KSHV/HHV8 Multicentric Castleman disease (also included in tumor-like lesions with B-cell predominance); Polymorphic LPD arising in immune deficiency/dysregulation; Epstein–Barr virus-positive mucocutaneous ulcer; Lymphomas arising in immune deficiency/dysregulation; Inborn error of immunity-associated lymphoid proliferations and lymphomas.	Multicentric Castleman disease (not included in this category, but included in HHV8-associated disorders); Polymorphic; Epstein–Barr virus-positive mucocutaneous ulcer (not included in this category, but included in large B-cell lymphoma); Monomorphic B and T-cell neoplasms, cHL; Lymphomas associated with HIV infection; Other iatrogenic immunodeficiency-associated LPDs.

The feasibility and clinical value of a standardized three-component basis for diagnosing immune deficiency-related lymphoproliferative disorders, the development of consensus treatment protocols leading to further improvements in outcomes, and the clinical value of treatment strategies for HIV-associated lymphomas addressing the contribution of EBV and KSHV viruses in lymphomagenesis and including immunotherapies will be addressed.

Conflicts of Interest: The authors declare no conflict of interest.

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