

Special Issue

Next-Generation Hematology: Artificial Intelligence and Biomarker-Driven Innovations in Diagnosis and Therapy

Message from the Guest Editors

Rapid technological advancements are reshaping modern hematology, offering unprecedented precision in disease diagnosis, prognosis, and treatment monitoring. Next-generation sequencing (NGS), flow cytometry, digital morphology, and multi-omics platforms are now enabling the detailed molecular and cellular characterization of hematologic disorders. These innovations, when integrated with artificial intelligence (AI) and machine learning tools, are revolutionizing biomarker discovery, data interpretation, and clinical decision-making. The convergence of genomic, proteomic, and metabolomic analyses supports a new era of personalized and predictive medicine, while technologies such as single-cell sequencing and high-throughput screening are continuing to expand our understanding of hematopoiesis and disease evolution. This Special Issue invites submissions that explore the integration of emerging technologies into hematology, focusing on AI-driven diagnostics, novel biomarkers, NGS, flow cytometry, multi-omics, digital pathology, and clinical innovations to advance precision medicine and improve patient outcomes.

Guest Editors

Dr. Ioannis Tsamesidis

Department of Biomedical Sciences, Faculty of Health Sciences,
International Hellenic University, Sindos, 57400 Thessaloniki, Greece

Dr. Ilias Pessach

1. Department of Biomedical Sciences, Faculty of Health Sciences,
International Hellenic University, Sindos, 57400 Thessaloniki, Greece
2. Athens Medical Center, Marousi, 15125 Athens, Greece

Deadline for manuscript submissions

31 October 2026



Hematology Reports

an Open Access Journal
by MDPI

Impact Factor 1.2
CiteScore 1.4
Indexed in PubMed



mdpi.com/si/258802

Hematology Reports
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
hematolrep@mdpi.com

[mdpi.com/journal/
hematolrep](https://mdpi.com/journal/hematolrep)





Hematology Reports

an Open Access Journal
by MDPI

Impact Factor 1.2
CiteScore 1.4
Indexed in PubMed



[mdpi.com/journal/
hematolrep](https://mdpi.com/journal/hematolrep)



About the Journal

Message from the Editor-in-Chief

Hematology Reports (ISSN 2038-8330) is an international open access journal on all aspects of prevention, diagnosis and management of disorders of the blood, as well as related molecular and cell biology, genetics, pathophysiology, epidemiology and controlled trials.

Editor-in-Chief

Dr. Claudio Cerchione
Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, 47014
Meldola, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), PMC, PubMed, Embase, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 26.9 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).