blood advances

Celebrating a year of cancer research in *Blood Advances*

With the close of 2023, we wanted to take stock of the seventh year for *Blood Advances.* It has been another superb year for the journal, receiving a large number of submissions cascaded from our sister journal *Blood* as well as submissions directly to *Blood Advances*. In 2023, our impact factor was 7.5, which now ranks us among the top 12 of the 79 hematology-based journals.

None of this would be possible without our incredible editorial team of Associate Editors: Michael DeBaun, Geoffrey Hill, Leslie Kean, Claudia Lengerke, Georg Lenz, Shannon Maude, Ryan Morin, Nikhil Munshi, Olatoyosi Odenike, Margaret Ragni, Wendy Stock, Constantine Tam, and Alisa Wolberg, along with Rayne Rouce, our Digital Commissioning Editor.

We are excited to say that the clinical guidelines continue to be among our most cited articles. These guidelines are developed by the guidelines oversight subcommittee comprising experts supported by the American Society of Hematology. This emphasizes how important such guidelines are to our readership, and more guidelines are planned for next year as well as updates to the current guidelines.

As 2023 draws to a close, we wanted to highlight the articles that have a neoplasia focus while also drawing attention to classical hematologic conditions that often manifest during malignancy. In brief, we first selected 1 of our recently invited review articles entitled "The clinical and molecular taxonomy of t(14;18)-negative follicular lymphomas." In this timely review, Salaverria et al focus on t(14;18)-negative follicular lymphoma (FL). As described in the review, these lymphomas can be divided into 3 broad groups, including FL of childhood/adolescence and FLs that present with a nodal vs extranodal presentation. The review highlights comparisons with t(14;18)-positive FL because t(14;18)-negative variants have distinctive clinical and genetic features.[1]

We then selected the following original articles that were published in 2022 and 2023 to highlight:

"Anti-CD19 CAR T cells in combination with ibrutinib for the treatment of chronic lymphocytic leukemia." In this article, Gill et al reported on their single-center experience of 20 patients with chronic lymphocytic leukemia (CLL) who were enrolled to receive CD19 chimeric antigen receptor (CAR) T cells after ibrutinib treatment. Overall, the authors concluded that autologous CD19 CAR T-cell therapy can be safely added to ibrutinib treatment, and this approach can result in deep and durable responses.[2]

"Characterizing the role of the immune microenvironment in multiple myeloma progression at a single-cell level." Schinke et al investigated the alterations within the bone marrow (BM) microenvironment that contribute to the progression of multiple myeloma (MM) from its precursor stages. By performing single-cell RNA sequencing in BM cells obtained from 8 patients with monoclonal gammopathy of undetermined significance (MGUS), 7 patients with smoldering MM, and 4 patients with newly diagnosed MM (NDMM), the authors identified changes in immune populations as the disease progressed. The most robust finding was an increase in the frequency of CD8 effector T cells expressing GZMH, CCL3, CCL4, and XCL2 from MGUS through NDMM. In future studies, it will be of interest to understand mechanistically whether these changes are reactive to or are the cause of MM progression.[3]

"Idasanutlin plus cytarabine in relapsed or refractory acute myeloid leukemia: results of the MIRROS trial." In this article, Konopleva et al present the results of a randomized phase 3 study of idasanutlin vs placebo in combination with intermediate-dose cytarabine for patients with relapsed or refractory acute myeloid leukemia (AML). Idasanutlin is an MDM2 inhibitor that attracted interest with single-agent activity and promising activity in a single-arm combination study. In this study, the authors evaluated this agent with cytarabine for refractory AML.[4]

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"Hematopoietic stem cell boost for persistent neutropenia after CAR T-cell therapy: a GLA/DRST study." In this study, Gagelmann et al evaluated patients who received a hematopoietic stem cell boost for neutropenia after CAR T-cell therapy. The authors concluded that early or prophylactic stem cell boost showed rapid response and improved outcomes for sustained moderate to severe neutropenia after CAR T-cell therapy.[5]

"Optical genome mapping in acute myeloid leukemia: a multicenter evaluation." This report from Levy et al demonstrated that optical genome mapping is a powerful and cost-effective tool for identifying known and new genetic variants in patients with AML.[6]

"A phase 2 study of nivolumab combined with ibrutinib in patients with diffuse large B-cell Richter transformation of CLL." This study by Jain et al explored the efficacy of the checkpoint inhibitor nivolumab in combination with ibrutinib for Richter transformation (RT). These data are important because of the lack of curative treatment options in RT and the strong clinical rationale for PD-1 inhibition.[7]

"ABO blood group type and risk of venous thromboembolism in patients with cancer." In this article, Englisch et al sought to determine the influence of ABO blood type on cancer-associated venous thromboembolism (VTE) risk. During the first 3 months of follow-up, there was no association between non-O blood type and VTE risk, but thereafter, non-O blood type was associated with a higher VTE risk.[8]

"Toxicity and efficacy of CAR T-cell therapy in primary and secondary CNS lymphoma: a meta-analysis of 128 patients." This report by Cook et al systematically analyzes the disparate data on CAR T-cell efficacy and toxicity in primary and secondary central nervous system (CNS) lymphoma. Encouraging efficacy was demonstrated for patients with CNS lymphoma, with no discernible differences between primary and secondary CNS lymphoma.[9]

"Comparison and validation of the 2022 European LeukemiaNet guidelines in acute myeloid leukemia." This comparative analysis by Lachowiez et al evaluated outcomes between the 2017 and 2022 European LeukemiaNet (ELN) criteria for patients enrolled within the multicenter Beat AML Cohort. The authors concluded that the updated ELN 2022 guidelines better stratified survival between patients with intermediate- or adverse-risk AML treated with induction chemotherapy.[10]

"A single-arm pilot study of a mobile health exercise intervention (GO-EXCAP) in older patients with myeloid neoplasms." Risk stratification of AML remains principal for survival prognostication and treatment selection. The updated ELN 2022 guidelines better stratify survival between patients with intermediate- or adverse-risk AML treated with induction chemotherapy. In this article, Loh et al report on how the increased complexity of risk stratification with inclusion of additional cytogenetic and molecular aberrations necessitates clinical workflows that simplify risk stratification.[11]

"Dasatinib/prednisone induction followed by blinatumomab/dasatinib in Ph^+ acute lymphoblastic leukemia." In this article, Advani et al report on a multicenter study treating older adult patients with newly diagnosed Philadelphia chromosome–positive acute lymphoblastic leukemia with a chemotherapy-free approach. After induction with prednisone and dasatinib, patients were treated with 3 cycles of blinatumomab/dasatinib postremission therapy, followed by maintenance with prednisone and dasatinib. The authors found this approach to be safe, with encouraging overall survival and disease-free survival rates.[12]

"Therapeutic targeting of PRAME with ^{mTCR}CAR T cells in acute myeloid leukemia." The therapeutic potential of immunotherapy in AML thus far has been limited. In this article, Kirkey et al showed aberrant expression of preferentially expressed antigen in melanoma (PRAME), which recognizes the PRAME peptide in complex with HLA-A2, in childhood and adult AML. With these data in hand, the authors used T-cell receptor–mimicking CAR T cells to target PRAME in AML cell lines and patient samples. This preclinical article lays the groundwork for moving this novel approach into the clinic.[13]

"Prolonged thrombocytopenia after CAR T-cell therapy: the role of thrombopoietin receptor agonists." This study by Drillet et al is the first to show the effect of thrombopoietin receptor agonists (TPO-RAs) on prolonged CAR T-cell–associated cytopenia. This report suggests a possible benefit of TPO-RAs for such patients, reducing the duration of platelet recovery and the need for transfusion.[14]

In summary, we remain extremely proud of the continued upward trajectory of *Blood Advances,* which is garnering increasing prominence in the field of hematology. We thank you for the honor and privilege to lead this journal and are incredibly grateful to all of our authors and reviewers, without whom none of the journal's success would be possible. This is your journal, and it is only with your loyal support that we can continue to flourish. We thank you, as always, for your ongoing support and welcome your submissions as well as any suggestions regarding content that may be of interest to you and the field.

Conflict-of-interest disclosure: C.M.B. and A.S.W. declare no competing financial interests with the manuscripts presented.

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