From the Editor

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This issue of *AJHO* brings a wide range of topics, including updates on common cancers and subjects not typically covered in reviews or perspectives. Few fields have changed as much as that of HER2-positive advanced breast cancer, which began with first randomized trial conducted by Dennis Slamon and colleagues, leading to the approval of trastuzumab. This study demonstrated an improvement in overall survival from 20 to 25 months with the addition of trastuzumab to chemotherapy as frontline therapy. Fast forward to this year, with the publication of updated results from Sandra Swain et al from the CLEOPATRA study now showing a median survival of over 56 months with the triplet of docetaxel, trastuzumab, and pertuzumab. These and other advances that constitute the current state of the art for metastatic HER2-positive breast cancer are presented by Drs Drakaki and Hurvitz. Drs Furmark and Pavlick provide us with a synopsis of results from BRAF and MEK kinase inhibition in BRAF-mutated melanoma, reviewing the latest data and discussing the clinical implications of the more frequent and dramatic responses, with correspondingly rapid relapses, being seeing with these agents. This stands in contrast to the less frequent but longer remissions seen with immune therapy.

While the less common entity of thyroid cancer is usually curable, few options have existed for less differentiated thyroid cancers that do not take up radioactive iodine (RAI). However, angiogenesis appears to have a critical role in these cancers, and the anti-angiogenic tyrosine kinase inhibitors sorafenib and more recently, levantinib, have now been approved for RAI-resistant thyroid cancer. Underlying molecular biology, predictive factors and new agents under investigation are also reviewed by Dr Tanaka and colleagues. The infrequent "double hit" lymphoma, characterized by two activating genomic alterations in the MYC oncogene and overexpression of the anti-apoptotic BCL2 or BCL6 proteins, has a correspondingly worse prognosis and mandates aggressive therapy. The recount by Drs Stephens and Sweetenham of the elegant biology and the nuances of differential consequences depending on the type of mutation or translocation serves to remind every oncologist of the need to slowly but surely become familiar with the basic tenets of cancer genomics.

My commentary in this issue represents a plea to the clinical investigative community to ensure that all trial results—positive and negative—are available in press or otherwise in the public domain. This may be the only way to eliminate publication bias in the interpretation and quantification of both benefit and risk, and ultimately affect guidelines and the way we practice clinical oncology.

Our CME article highlights a recent and important set of studies on immunotherapy for squamous cell lung cancer. This is a disease with unmet needs, with lack of responses seen with agents that are effective in adenocarcinoma of the lung, such as bevacizumab and erlotinib. However, immunotherapy has broken this barrier, with the recent approval of the PD-1 checkpoint inhibitor nivolumab based on a phase III trial showing a dramatic 41% improvement in median survival when added to docetaxel after progression on a platinum regimen. A review of the biological differences between squamous and adeno versions of non-small cell lung cancer and our treatment approaches, as well as practical issues of immunotherapy and its toxicities, is presented through an informative interview with Roy Herbst, MD, PhD.