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Phase I Clinical Trial of MPC-6827 (Azixa), a Microtubule Destabilizing Agent, in Patients with Advanced Cancer
Apostolia-Maria Tsimberidou, Wallace Akerley, Matthias C. Schabel, David S. Hong, Cynthia Uehara, Anil Chhabra, Terri Warren, Gary G. Mather, Brent A. Evans, Deane P. Woodland, Edward A. Swabb, and Razelle Kurzrock

Aldehyde dehydrogenase-1A1 (ALDH1A1) is heterogeneously expressed in multiple tumors. Cells with ALDH1A1 activity have been shown to have increased tumorigenicity, differentiation capacity, and chemoresistance. To confirm that the spotty heterogeneous expression of ALDH1A1 was not being visualized in tumor-infiltrating macrophages, frozen patient samples were subjected to dual immunohistochemistry against ALDH1A1 (DAB/brown) and CD68 (a pan-macrophage marker, Ferangi Blue), where distinct populations are noted. Landen and colleagues show that increased ALDH1A1 expression was associated with poor survival and is a viable target for therapy in preclinical models of ovarian cancer. For details, see article by Landen and colleagues on page 3186.