

MOLECULAR CANCER RESEARCH

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ABOUT THE COVER

Amplification of HER2 and/or expression of pathogenic HER2 isoforms is a recognized oncogenic event in the natural history of certain breast cancers. While HER2-amplified breast cancers are treated uniformly, the specific roles of each HER2 alteration in a heterogeneous tumor have not been well defined. In their study on page 1699, and as depicted on the cover, Ginzel and colleagues employ a “cancer rainbow” mouse model in which multiple HER2 isoforms were barcoded with distinct fluorescent labels to trace tumor subpopulations expressing different HER2 isoforms (cyan, wild type; yellow, exon 16 splice isoform; magenta, NH₂-terminally truncated isoform). The data demonstrate that the various HER2 alterations are associated with differential effects on epithelial specification, rate of tumor growth, and invasiveness. The authors conclude that programs underlying intratumor heterogeneity are established early in the tumorigenic process and can have major implications for disease trajectory.

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