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N.E. Reticker-Flynn and S.N. Bhatia
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Reticker-Flynn and Bhatia found that tumor-derived IL6 induced CD11b+ galectin-3+ leukocyte mobilization from the bone marrow in a mouse model of lung adenocarcinoma. Metastatic cell lines and human non–small cell lung cancer samples exhibited increased surface presentation of the galectin-3 ligand, Thomsen-Friedenreich Antigen (T-Antigen). Elevated T-Antigen surface presentation was mediated by altered expression of the glycosyltransferases C2GnT2 and St6GalNAc4, which prevented T-Antigen glycan elongation. Restoration of T-Antigen glycan chain elongation decreased T-Antigen presentation, reduced tumor-cell galectin-3 binding, and inhibited experimental metastases in vivo. These results indicate that aberrant glycosyltransferase activities play a critical role in the early metastatic niche to promote metastatic progression of lung tumors. For details, please see the article by Reticker-Flynn and Bhatia on page 168.

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