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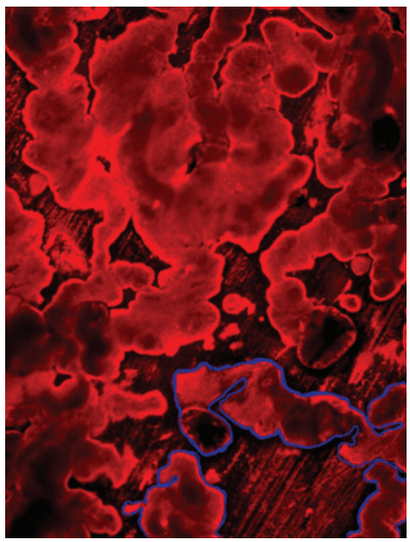
ABOUT THE COVER



Metastasis to bone is the most frequent cause of breast cancer morbidity and mortality. Osteolytic lesions are formed as a result of cancer-induced increased osteoclast activity. Heparin and heparin-like glycosaminoglycans (HLGAGs), which are commonly used to prevent venous thromboembolism, have previously been shown to prolong survival of cancer patients. The effects of HLGAGs on human osteoclasts were studied *in vitro* by culturing human osteoclasts on bovine bone slices in the presence of different concentrations of HLGAGs for three days. Multinuclear TRACP-positive osteoclasts were visualized by staining the nuclei with Hoechst and the tartrate-resistant acid phosphatase (TRACP) content of the cells using a leukocyte acid phosphatase kit. Resorption pits were visualized using TRITC-conjugated WGA lectin. The upper images of resorption pits (X 20 magnification) indicate that a high-molecular-weight *E. coli* K5-derived heparin-like polysaccharide (K5-NSOS) inhibits bone resorption activity of osteoclasts (examples of resorption pits are outlined in blue). K5-NSOS did not affect the amount of TRACP positive osteoclasts, as indicated by the lower images (X 10 magnification). Because K5-NSOS is an antimetastatic and antiresorptive compound with low anticoagulant activity, it is a potential therapeutic agent to prevent and/or treat breast cancer metastases. For further details, please see Pollari and colleagues on page 597 in this issue.