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Cancer Prevention Research

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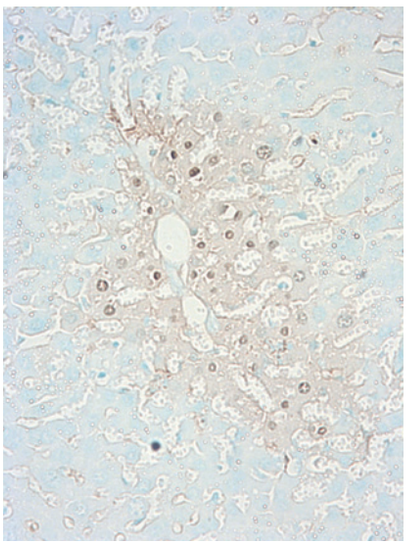
ABOUT THE COVER



Gut-derived LPS promotes inflammatory hepatic injury and apoptosis by activating Toll-like receptor 4 (TLR4). Reduction of endotoxin using antibiotics regimen or TLR4 ablation in mice greatly attenuates hepatocyte apoptosis in a Con A–induced hepatitis model. Wild-type (wt) and TLR4 knockout ($TLR4^{-/-}$) mice were injected with Con A intravenously and sacrificed 0, 6, and 20 hours thereafter. The micropictogram featured on the cover (magnification $\times 200$) shows the apoptotic cells (brown) of liver sections from Con A-injected wt mice with antibiotic treatment using TUNEL assay in contrast to normal hepatocytes (green). Quantification of the apoptotic cells induced by Con A was significantly suppressed in both antibiotic-treated ($P < 0.01$) and $TLR4^{-/-}$ mice ($P < 0.001$; not shown) compared with control mice; this was further confirmed by the activation of caspase-3 and PARP demonstrating that the activation of TLR4-signaling pathway is important in Con A-induced hepatic injury in mice. See article by Lin *et al.* (beginning on page 1090) for more information.

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