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*Cover photograph* (Copyright © 2006, American Society for Microbiology. All Rights Reserved.): Endosomal activation of NADPH oxidase is shown using H<sub>2</sub>HFF-bovine serum albumin (BSA) fluorescent detection of superoxides (green). Superoxide production was colocalized with the early endosomal antigen EEA1 (red). The center cell was costained with H<sub>2</sub>HFF-BSA and EEA1 following interleukin-1 $\beta$  (IL-1 $\beta$ ) stimulation. The lower right cell was similarly stained but not stimulated with IL-1 $\beta$ . The upper left cell was stained with H<sub>2</sub>HFF-BSA but not for EEA1. The schematic insert depicts the various molecular interactions at the endosomal level that occur following IL-1 $\beta$  stimulation of IL-1R1. (See related article on p. 140.)