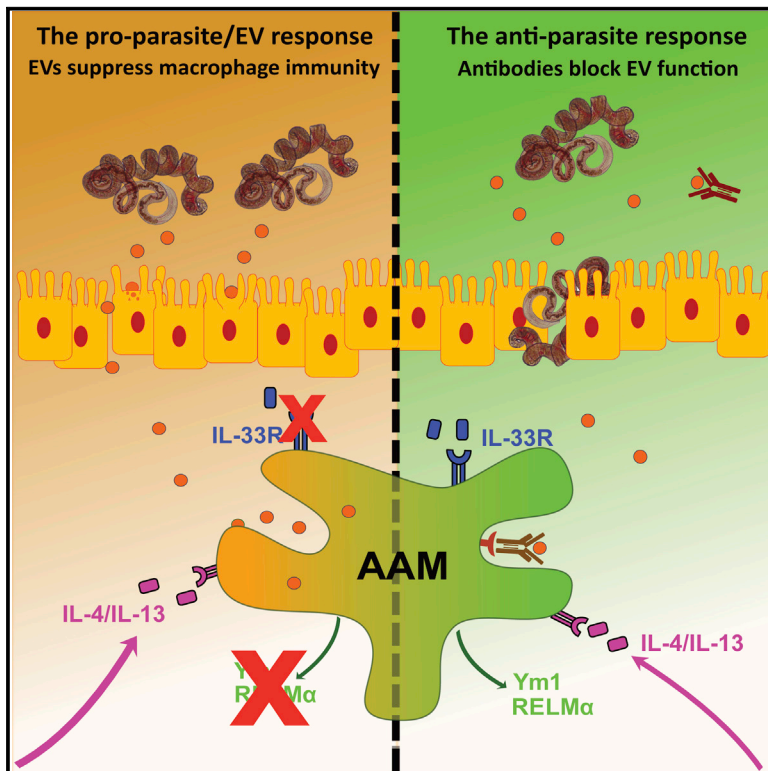


Extracellular Vesicles from a Helminth Parasite Suppress Macrophage Activation and Constitute an Effective Vaccine for Protective Immunity

Graphical Abstract



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In Brief

Coakley et al. find that extracellular vesicles (EVs) from a nematode parasite can suppress host macrophage activation and the alarmin receptor ST2 and that this can be blocked by antibodies. Vaccination with EVs drives strong antibody responses, conferring protection against infection. The authors thus highlight a role for EVs in parasite-host crosstalk.

Highlights

- EVs from a nematode parasite suppress type 1 and type 2 activation of macrophages
- Antibodies block EV function and increase their co-localization with the lysosome in macrophages
- EV vaccination generates strong antibody responses and protective immunity against infection
- EVs target both the IL-33 pathway and macrophage activation to counter parasite expulsion

