

# Cytomegalovirus latency exacerbates cardiac inflammation and tissue remodeling after myocardial infarction



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**Abstract:** Epidemiological studies have consistently associated cytomegalovirus (CMV) seropositivity with adverse cardiovascular outcomes, however the mechanisms by which CMV infection impacts pathophysiology in the heart remain poorly understood. Using experimental MI on C57BL/6J mice superimposed with MCMV infection we show that MCMV induces long-term changes in the cardiac transcriptional profile as well as the establishment of cardiac-resident immune cell populations, including virus-specific CD8 T cells. These observations were supported by data from CMV-seropositive MI patients, who harbored CMV-responsive T cells in the heart.

