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+RZ WR HOLFLW LPPHGLDWH DQG ORQJ WHUP LPPXQLW\ DJDLQV

When delivered intranasally a single dose of the TLR-2 agonist S-[2,3-bis(palmitoyl oxy)propyl] cysteine (Pam2Cys) a ords up to 99% reduction in viral loads in the lungs of mice challenged with in uenza virus strains of moderate virulence and signi cantly reduces weight loss and mortality following challenge with highly virulent virus strains. e e ect is immediate, occurring in the rst day of exposure, and is achieved with a single dose of Pam2Cys. Mice treated with Pam2Cys and subsequently challenged wi in uenza virus also demonstrate lower rates of contact transmission when compared to naive mice. e anti-viral activity is antigen independent and associated with activation of the innate immune system through Pam2Cys-dependent recruitment of neutrophils, macrophages and soluble factors including IL-6, IL-10, IFN- J, MCP-1 and TNF- . into the pulmonary tract. e ndings indicate that Pam2Cys is a

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