CHAGAS DISEASE Macrophage Fibroblast Skeletal muscle cell Cardiac muscle cell LPS, GIPL-ceramide → TLR4 TRIF IFNβ DNA RANTES Toll-like receptor signaling pathway JNK MCP1 ERK 1/2 $TNF\alpha \\$ Inhibition of parasite growth DNA IL12 p38 tGPI-mucin TLR2 ► TRAF6 IL6 TLR6 Tc 52 IL8 IKK ΙκΒ MIP1α Leukocyte migration DNA ► TLR9 DNA Cardiomyocyte hypertrophy NFkB IL1β Endosome Arginine and proline metabolism Inhibited protective response IFNy IFNGR Promotion of parasite growth iNOS $TNF\alpha \\$ TNFR L-arginine O Reduced antiparasitic activity Complement pathway IL10 gp160 DNA Calcium signaling pathway B2R Gq IP3 PLC Trypanosoma cruzi amastigote OPB Gi Lysosome-mediated invasion AC **►** To TOX Escape into the cytoplasm Plasma membrane-mediated invasion cAMP Parasitophorous vacuole ► Akt Trypanosoma cruz trypomastigote Phosphatidylinositol signaling system TGF-β signaling pathway ► Smad2 PAI-1 Increased parasitemia Inhibition of apoptosis Intracellular persistence of parasite ► caspase 8 Apoptosis of infected cells TNFR | IFNGR IFNy GIPL-ceramide Apoptosis Release of viable parasite T cell Activation-induced cell death Antigen - TCR CD3 ΙκΒ 🗦 caspase 8 FasL DNA NFĸ₿

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