

Supplementary Table S7: LHS sensitivity analysis results for the effect of TNF/TNFR-associated molecular and linking parameters on model outputs at day 200 post-infection. Parameter definitions are presented in Supplementary Tables S2 and S5.

	D_I	δ_{TNF}	$k_{synthMac}$	K_{dI}	k_{intI}	k_{recI}	$TNFR1_{mac}$	k_{apop}	τ_{apop}	$k_{NF\kappa B}$	$\tau_{NF\kappa B}$
TNF function-related outputs											
(No. apoptosis) _{Macs}	+	---	+++	-	---	---		++	---		
(No. apoptosis) _{Mr}	+++	---	+++	-	---	---		+	---		
(No. apoptosis) _{Mi & Mci}			---	---	+++	---		+++	---	---	
(No. apoptosis) _{Ma}		---	+++	-	---	---		+	-		
(No. apoptosis) _{T cells}			+++			--			--		
(No. NFκB activation) _{Mr}	+++	--	+++		---	+++		-		+++	---
(No. NFκB activation) _{Mi}	-		---	-		+					
Cellular-level outputs											
B _{int} (intracellular Mtb)		++	---		+		-			---	++
B _{ext} (extracellular Mtb)		++	---		+		-			---	++
B _{tot}		++	---	+	+		-			---	++
Total Macrophages		+++	---	+			---			---	++
M _r		++	---	+	+		---			---	++
M _i		+	---		+		-			---	+
M _{ci}		+	---		+		-			---	++
M _a			---							---	
Total T cells		+	---	+			-			---	+
T _γ		+	---	+			-			---	+
T _c		+	---	+			-			---	+
T _{reg}		+	---	+	+		-			---	+
Tissue-level outputs											
Caseation		+++	---	+++	+	+++	---	-		---	++
Granuloma size		+++	---	++	+		--			---	+++
Tissue concentrations											
[sTNF] _{avg}			---	+			-			---	+
[Chemokines] _{avg}		+	---	+			-			---	+

Only parameters with significant PRCC values are indicated. Significant positive and negative correlations are shown using +/- as follows:

-/+, 0.001 < p -value < 0.01

--/+++, 0.0001 < p -value < 0.001

---/++++, p -value < 0.0001