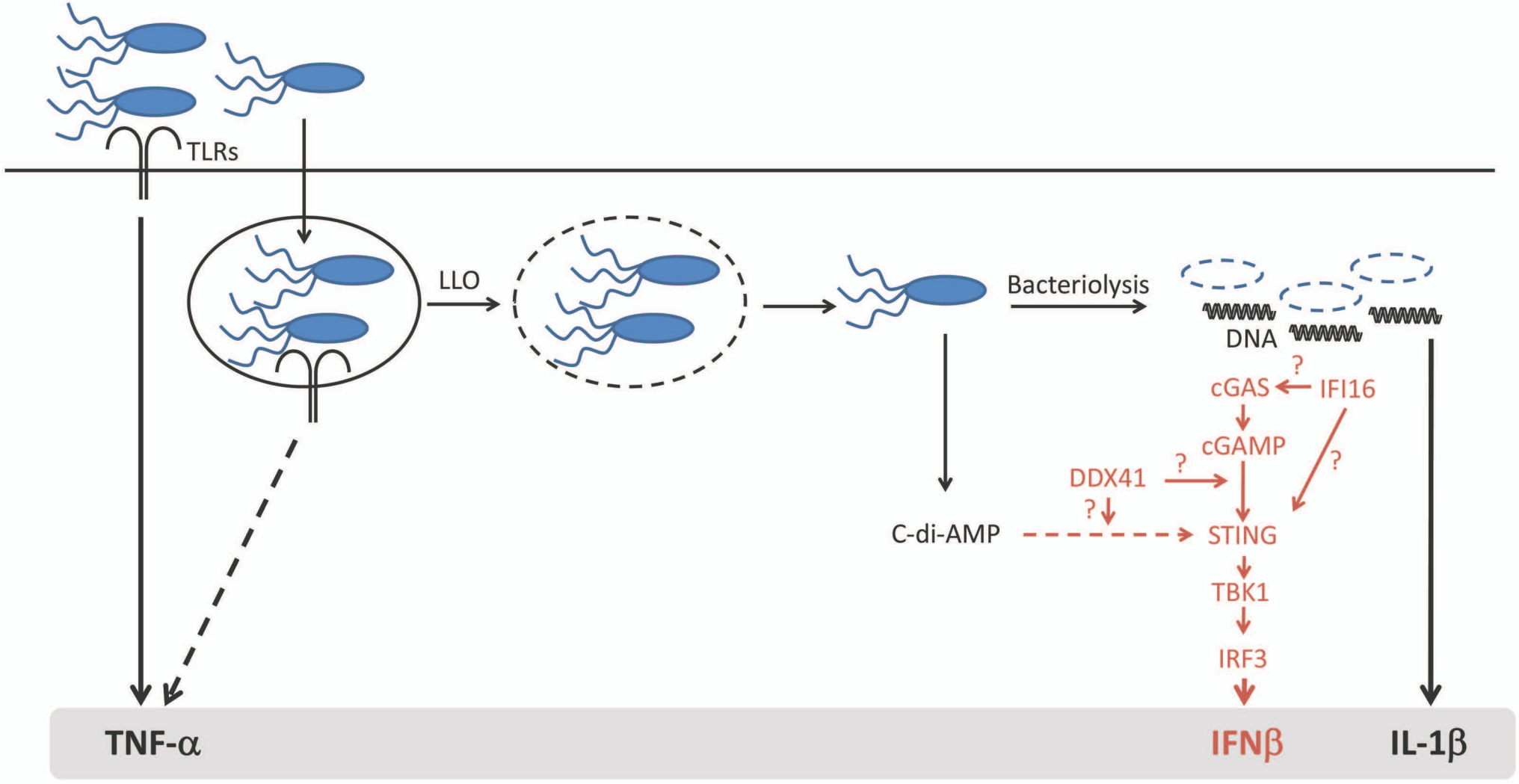
Figure S8


TLRs
LLO
Bacteriolysis
DNA
?
cGAS
IFI16
cGAMP
?
?
DDX41
?
C-di-AMP
STING
TBK1
IRF3
TNF-α
IFNβ
IL-1β

Supplementary Figure S8. Model for induction of IFNβ expression during *L. monocytogenes* infection in human myeloid cells. *L. monocytogenes* is sensed by TLRs to induce expression of TNF-α. Stimulation of IFNβ expression and production of IL-1β is dependent on escape of the bacteria into the cytoplasm. The bacteria can produce c-di-AMP, which in murine cells potently activates STING and stimulates IFNβ expression. The bacteria can also undergo bacteriolysis in the cytoplasm leading to release of DNA thus triggering the STING-TBK1 pathway in a manner dependent on the DNA sensors IFI16 and cGAS. While cGAS works by synthesizing cGAMP, thus promoting STING activation, the mechanism of action of IFI16 in DNA sensing and signalling remains unresolved. DDX41 was not essential for Listeria-induced IFNβ expression, but was essential for evoking this response to short synthetic dsDNAs and c-di-AMP. This could suggest a role for DDX41 as a CDN co-factor promoting activation of the STING pathway.