

Neural Factor X implicates microglial TLR4 for the prevention of ischemic damages

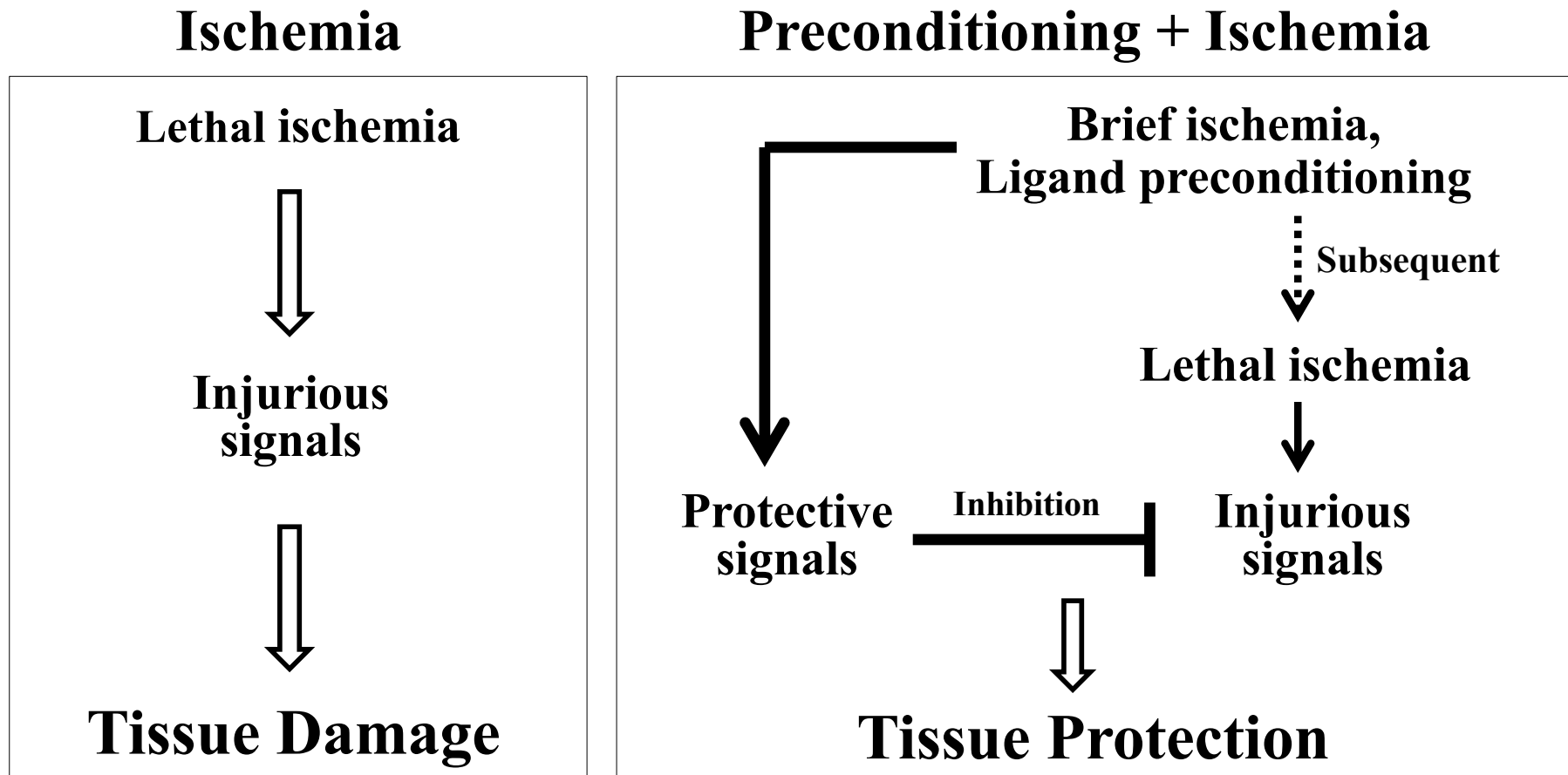
Presentation by

A and B

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- The author has no conflict of interest to disclose with respect to this presentation.

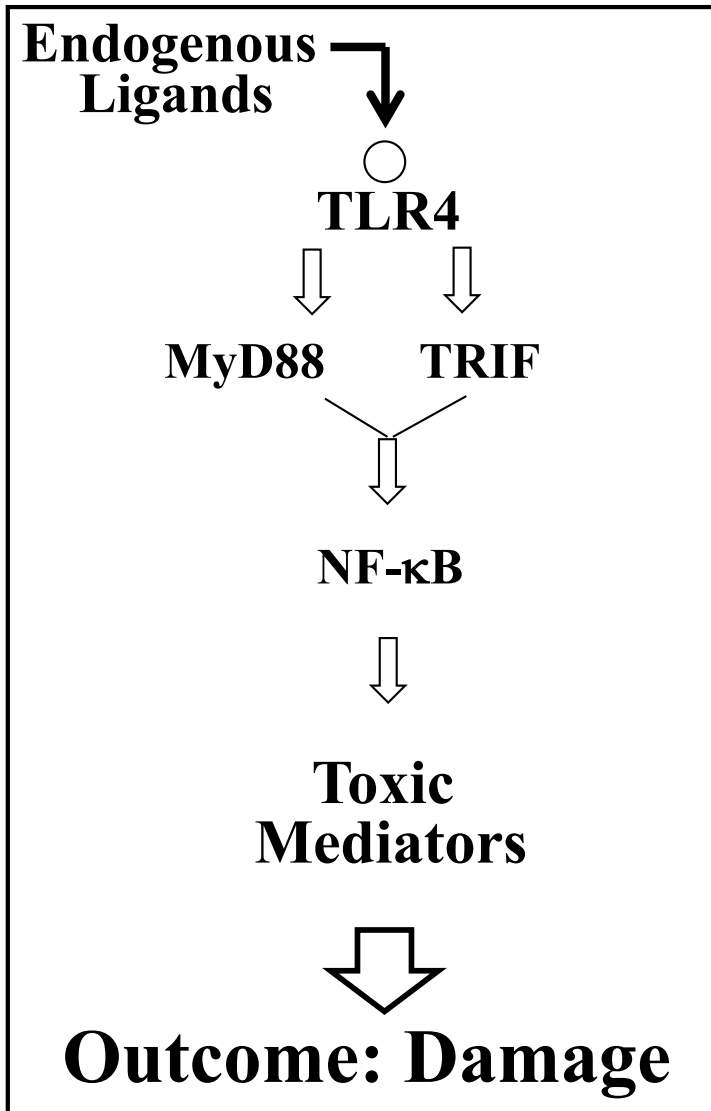
Preconditioning-induced prevention of ischemic damage



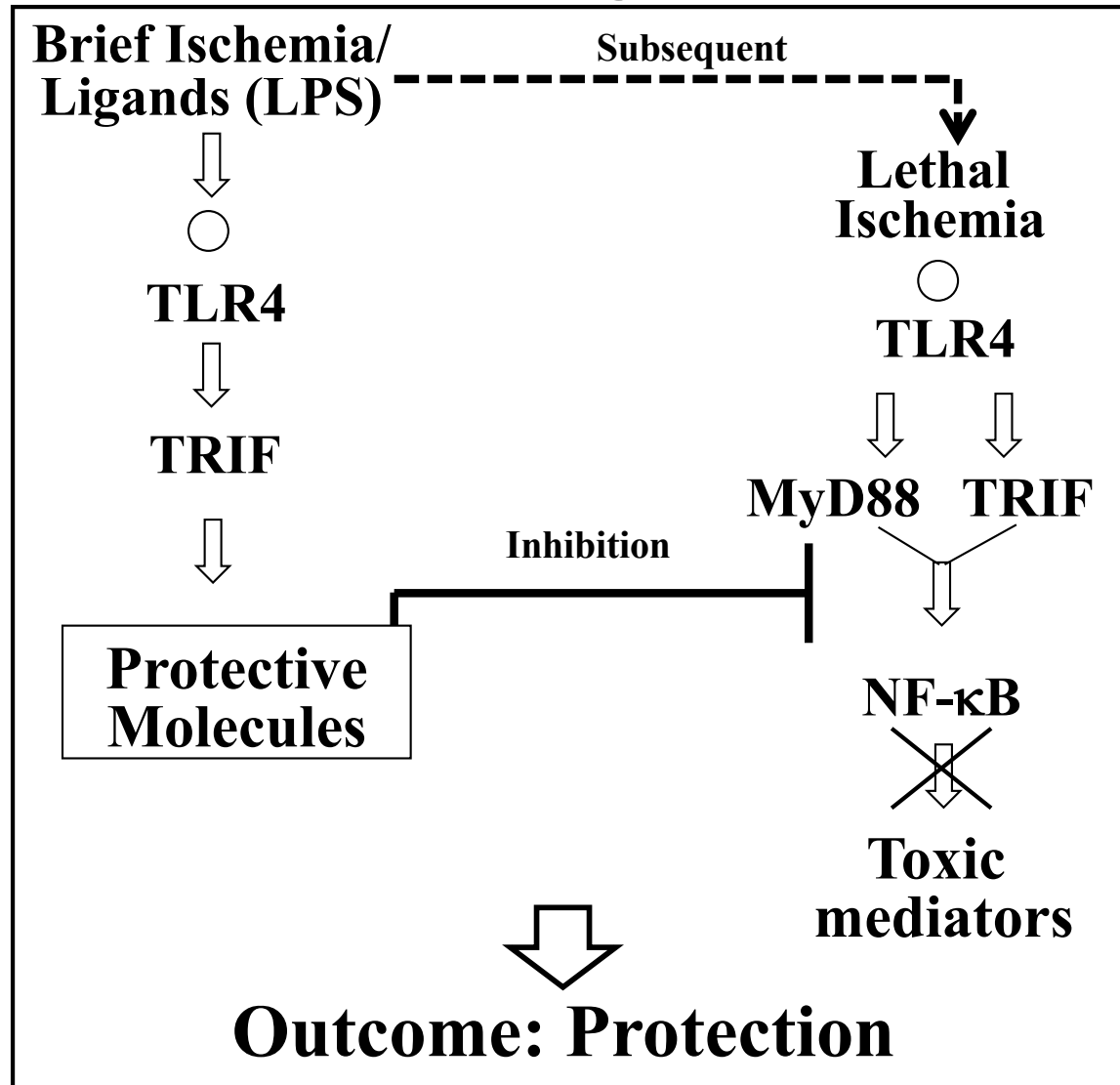
- ◆ Brief ischemic stress or ligand preconditioning before lethal ischemia prevents the ischemia-induced tissue damages.

Dual functions of TLR4 signaling in ischemia

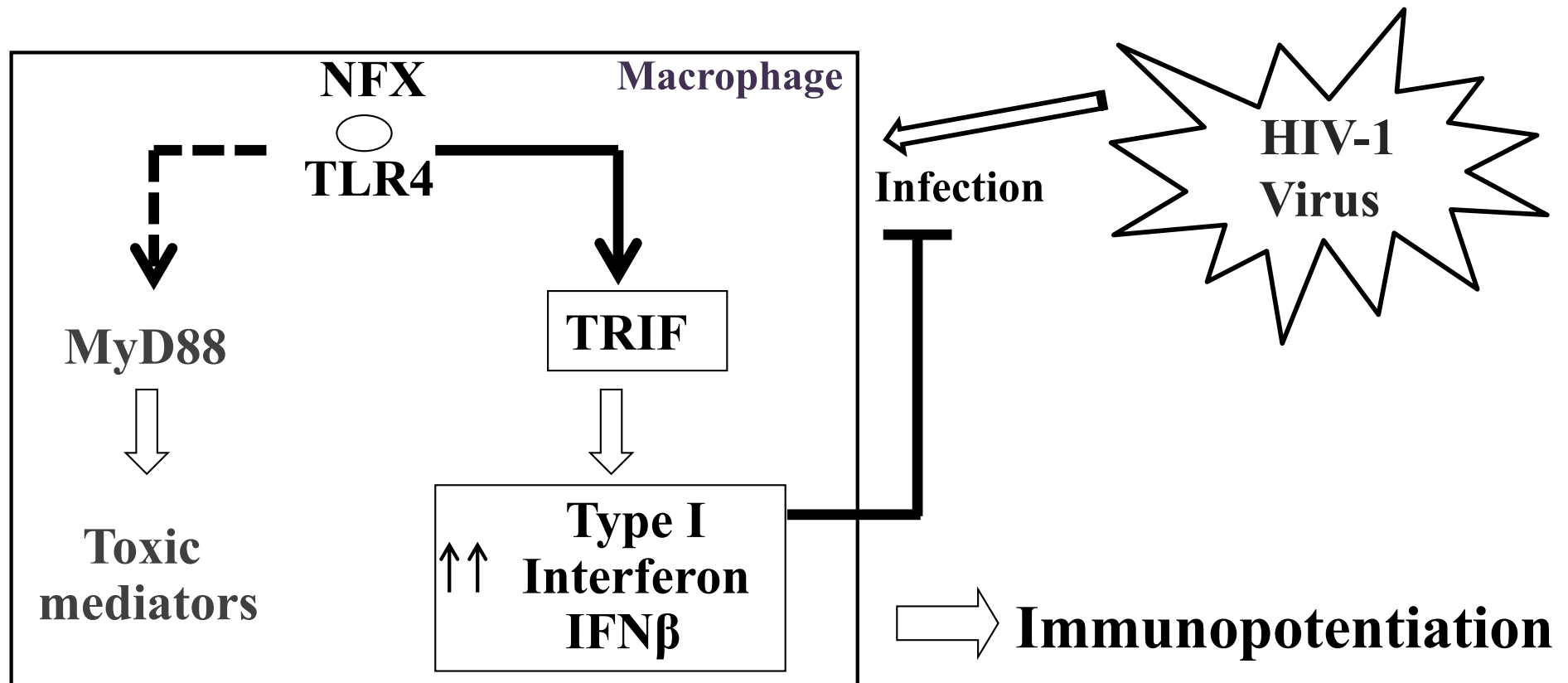
Ischemia



Preconditioning + Ischemia



Neural Factor X-induced immunosuppression against virus



- ◆ **Neural Factor X induces TLR4-mediated immunosuppression against viral infection in macrophage**
- ◆ **Gravimetric assay and computational modeling: Neural Factor X binds to TLR4/MD2**

Questions

- ◆ **Does Neural Factor X preconditioning prevent the ischemic damage of neurons?**
- ◆ **Does TLR4 mediate the Neural Factor X preconditioning-induced protection of ischemic damage of neurons?**

Conclusion/Take home message

Neural Factor X preconditioning prevents ischemia-induced cellular and functional damages of neurons through TLR4 on microglia.

