

- Erinacine S derived from the mycelium of *Hericium erinaceus* promotes neurite outgrowth of primary neurons from both the central (CNS) and peripheral nervous systems (PNS).
- Erinacine S promotes the regeneration of CNS neurons on inhibitory substrates (chondroitin sulfate proteoglycans) that mimic the CNS injury condition.
- Erinacine S enhances the regeneration of PNS axons after they were physically severed.
- Erinacine S facilitates the accumulation of neurosteroids in neurons.