Silver nanoparticles conjugated with Neurotrophin 3 upregulates Myelin Gene Transcription Pathway

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Highlights

- Myelin-gene Regulatory Factor (MYRF) is the important transcription factors for myelin generation in the central nervous system
- Loss of myelin causes multiple sclerosis, leukodystrophies, and deformity in motor learning ability
- Neurotrophic factors are the signaling proteins, playing role in the regulation of neural survival and axonal development
- Bio-pathways are modeled for investigating networks, to understand gene expression profiles and foreseeing the result of different changes made to the cells
- In this study mathematical modeling of myelin gene transcription, by using neurotrophin protein conjugated with silver nanoparticle as a ligand to initiate the transcription of mutated myelin gene.