# Super HGF

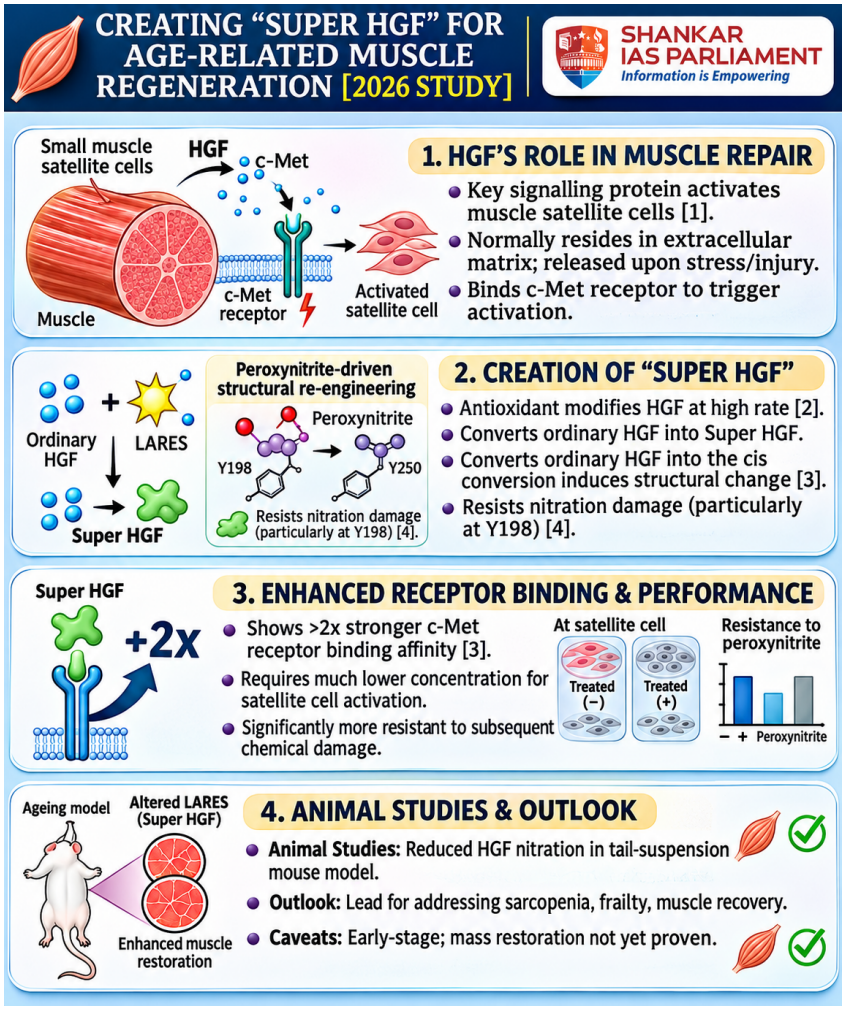
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## Why in News?

*Researchers at Kyushu University discovered that the sulfur-based compound lipoic acid trisulfide (LASSS) can transform the natural muscle-repair protein hepatocyte growth factor (HGF) into an enhanced version dubbed "Super HGF."*

## Working of Super HGF

- **The Problem with Aging-** As we age, HGF suffers from nitration (specifically at amino acid positions Y198 and Y250), which blocks its ability to bind properly to c-met receptors on muscle cells and slows down regeneration.
- **The Compound's Role-** LASSS directly interacts with HGF, causing a structural change that doubles its c-met receptor binding capacity and makes it highly resistant to age-related nitration.
- **Animal Studies-** In mouse models tested for muscle atrophy (such as tail suspension tests), pretreatment with LASSS dramatically reduced protein nitration and protected muscle tissue.




## Reference

[Science Daily| Super HGF]

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