

What is AgeXtend?

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About AgeXtend:

- It is an **artificial intelligence (AI)-powered platform** designed **to discover molecules that could slow down ageing** and promote healthier lives.
- It was **developed by** researchers at the **Indraprastha Institute of Information Technology Delhi (IIIT-Delhi)**.
- AgeXtend **utilises bioactivity data from existing geroprotectors—substances that slow ageing—to predict new molecules** with similar properties.
- Its AI modules evaluate geroprotective potential, **assess toxicity**, and **identify target proteins** and mechanisms of action, ensuring both accuracy and safety in the discovery process.
- The researchers **tested AgeXtend by excluding** well-known **compounds like metformin and taurine**, molecules **already known to extend lifespan**, and found that the platform could still predict their benefits.
- AgeXtend also screened more than 1.1 billion compounds and identified promising candidates validated through experiments on yeast, *Caenorhabditis elegans* (a nematode), and human cell models.
- The research also explored AgeXtend's **ability to analyze natural compounds found in the human microbiome**, tiny organisms living in our bodies, **and their role in controlling cell ageing**.

Q1: What is metformin?

Metformin helps to control the amount of glucose (sugar) in your blood. It decreases the amount of glucose you absorb from your food and the amount of glucose made by your liver. Metformin also increases your body's response to insulin, a natural substance that controls the amount of glucose in the blood.

News: Indian AI screens 1.1 billion molecules, makes anti-ageing breakthrough

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