PROJECT NUMBER

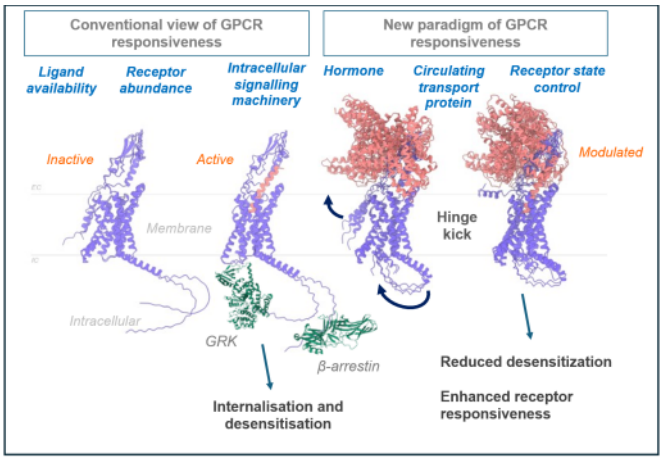
22380

GC-globulin: a first-in-class extracellular allosteric modulator of GLP-1 receptor signalling

GC-globulin is a naturally occurring extracellular allosteric modulator that enhances GLP-1 receptor signalling. Preclinical studies demonstrate synergistic glucose lowering, reduced food intake and weight loss with GLP-1 receptor agonists, supporting enhanced efficacy at lower agonist doses.

This first-in-class platform enables extracellular modulation of GPCR signalling across multiple receptor families.

Applications: Type 2 diabetes, obesity, MASLD, neurodegenerative disease



Features	Benefits
First endogenous extracellular modulator of GLP-1R	Novel mechanism with strong differentiation from existing GLP-1 therapies
Synergistic activity with GLP-1 receptor agonists	Potential to improve efficacy while reducing agonist dose
Compatible with existing GLP-1 drug class	Applicable to marketed and next-generation incretin therapeutics

Features	Benefits
Cryo-EM and mechanistic studies identify a defined extracellular binding interface	Enables rational optimisation and engineering of next-generation molecules
Broad therapeutic potential across metabolic disease	Opportunities beyond diabetes, including obesity, MASLD and neurodegeneration

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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