

Phase 1 clinical development of PG-102,
a next-generation GLP-1/GLP-2 dual agonist for treating obesity and diabetes

ProGen Co., Ltd.

Disease area	Metabolic diseases		
Product Type	Bispecific fusion protein		
Indication	Obesity, Type 2 Diabetes		
Target	GLP-1R and GLP-2R		
Mechanism of Action	<div><div><div>High-fat diet</div><div>↓</div><div>Out permeability ↑</div><div>↓</div><div>Metabolic endotoxemia</div><div>↓</div><div>Chronic low-grade inflammation</div><div>↓</div><div>Insulin resistance ↑</div><div>↓</div><div>Obesity Diabetes</div></div><div>GLP-1</div><div>GLP-2</div><div>Long-acting Fc</div><div>GLP-1R</div><div>GLP-2R</div></div> <div>A biased GLP-1R/GLP-2R dual agonist with extended PK properties<ul style="list-style-type: none">Relative potency of PG-102 against GLP-1 receptor and GLP-2 receptor is sophisticatedly optimized for simultaneously activation of both receptors.PG-102 also features NTIG[®], a long-acting Fc platform technology, for a prolonged action.</div>		
Competitiveness	Efficacy	<ul style="list-style-type: none">Superior quality of body weight loss compared to Tirzepatide Fat mass loss ↑ + lean mass loss ↓Breakthrough glycemic control compared to Semaglutide and Tirzepatide Glucose uptake ↑ + β-cell protectionComorbidity prevention in obesity/diabetes	Data 1 Data 2 Data 3
	Safety	<ul style="list-style-type: none">Improved safety & tolerability Gastrointestinal tract inflammation ↓	Data 3
	Convenience	<ul style="list-style-type: none">Extended dosing interval allowing for at least biweekly to monthly administration	
Development Stage	Phase 1b		
Route of Administration	Subcutaneous injection		
Key Data	<div><div><div>1. PG-102 achieves comprehensive weight loss and enhanced fat-to-lean loss ratio compared to Dapiglutide and Tirzepatide</div><div><p>Body weight change (%)</p><p>Days after treatment start</p><p>Control, HFD vehicle, Dapiglutide (30 nmol/kg), Tirzepatide (15 nmol/kg), PG-102 (30 nmol/kg), PG-102 (60 nmol/kg)</p><p>Comparable body weight loss</p></div><div><p>Change (%)</p><p>Fat mass loss, Lean mass loss</p><p>HFD vehicle, Dapiglutide (30 nmol/kg), Tirzepatide (15 nmol/kg), PG-102 (60 nmol/kg)</p><p>Outstanding increase in fat-to-lean loss ratio</p></div></div><div><div><div>2. PG-102 excels in glycemic control, achieves normoglycemia, and enhances β-cell protection compared to Semaglutide and Tirzepatide</div><div><p>HbA1c (%)</p><p>Months after treatment start</p><p>Vehicle, Semaglutide (30 nmol/kg), Tirzepatide (15 nmol/kg), PG-102 (60 nmol/kg)</p><p>Superior reduction in glycated hemoglobin</p></div><div><p>H&E, Insulin</p><p>Vehicle, Semaglutide (30 nmol/kg), Tirzepatide (15 nmol/kg), PG-102 (60 nmol/kg)</p><p>Effective pancreatic β-cell protection</p></div></div><div><div><div>3. PG-102 demonstrates effective prevention of comorbidities through superior systemic inflammation control</div><div><p>Concentration (U/L)</p><p>ALT, AST</p><p>Vehicle, Semaglutide (30 nmol/kg), Tirzepatide (15 nmol/kg), PG-102 (60 nmol/kg)</p><p>Inhibition of hepatocyte damage</p></div><div><p>Relative Expression</p><p>Occludin, Zo-1</p><p>Vehicle, PG-102 (30 nmol/kg)</p><p>Elevated expression of tight junction related proteins</p></div><div><p>Liver Triglyceride (nmol/L)</p><p>Vehicle, PG-102 (30 nmol/kg)</p><p>Exceptional reduction in hepatic triglycerides and steatohepatitis levels</p></div><div><p>NAFLD Activity Score</p><p>Vehicle, PG-102 (30 nmol/kg)</p><p>Exceptional reduction in hepatic triglycerides and steatohepatitis levels</p></div></div></div></div></div>		
IP	KR Registered (KR10-2349717, KR10-2349718) Under review in Key countries (including US, EP, CN, ID, BR)		