Dapiglutide, a once-weekly GLP-1R/ GLP-2R dual agonist, was safe and well tolerated and showed dosedependent body weight loss over 4 weeks in healthy subjects

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# **Multiple ascending dose study**



#### **Objectives**

#### Primary objective

• Evaluate safety and tolerability

#### Secondary objectives

- Investigate immunogenicity
- Investigate pharmacokinetics
- Assess pharmacodynamics



# All demographics were balanced across cohorts of healthy subjects

	<b>Total, n=40</b> Mean (SD)
Age, years	34 (8.8)
Sex, number M/F	39/1
Body weight, kg	78.3 (8.2)
BMI	24.6 (2.3)

# All 40 randomized subjects received four doses and completed the trial

#### **Pharmacokinetics of dapiglutide**



#### Conclusions

- ✓ Dose proportionality shown
  ➢ For AUC<sub>0-t</sub> and C<sub>max</sub>
- ✓ Once weekly profile
  ➢ Half-life: 123-129 h
- ✓ At steady state after 4<sup>th</sup> dose

# Safety

- No severe adverse events
- No serious adverse events (SAEs)
- No withdrawals due to AEs
- No anti-drug antibodies

	1		) m						2.25 mg																				Placebo (N=12)											
One subject in each column	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9	10	11	12

					2.	Dapiglutide 2.25 mg (N=7)																				Placebo (N=12)								
One subject in each column																																		
Overall incidence																																		

	Dapiglutide 1.00 mg (N=7)	Dapiglutide 2.25 mg (N=7)	Dapiglutide 3.5 mg (N=7)	Dapiglutide 3.5/6.0 mg (N=7)	Placebo (N=12)										
One subject in each column															
Overall incidence															
Decreased appetite															
Gastrointestinal															
Nervous system disorders															
General disorders and admin site conditions															
Investigations															

### **Dose-dependent body weight loss**



#### **Reduced meal consumption**

Mixed meal test

#### **Standard meals**



# **Dose-dependent reductions in gastric emptying**



#### Change from baseline in AUC 0-4 hours



#### **Dose-dependent reductions in insulin and glucose**

Glucose

**Mixed test meal** 

Insulin



### **Summary points and conclusion**

#### Summary

- > Dapiglutide was safe and well-tolerated in healthy study subjects
- > Dose dependent body weight loss up to a mean 4.3% in 4 weeks in healthy subjects
- > Predictable PK profile with a half-life consistent with once-weekly dosing
- > Dose dependent reductions in gastric emptying, glucose and insulin

### Conclusion

Dapiglutide is a dual GLP-1 and GLP-2 receptor agonist with demonstrated dose dependent weight loss and effects on plasma glucose and insulin providing a promising potential new therapy for metabolic diseases