Hua Medicine
华领医药

全控血糖 稳而有道

Hua Medicine
2023 Annual Results Presentation
March 2024

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Company Overview

Commercialization of HuaTangNing

3

We worked with 3 manufacturing partners and expanded the production capacity of HuaTangNing.

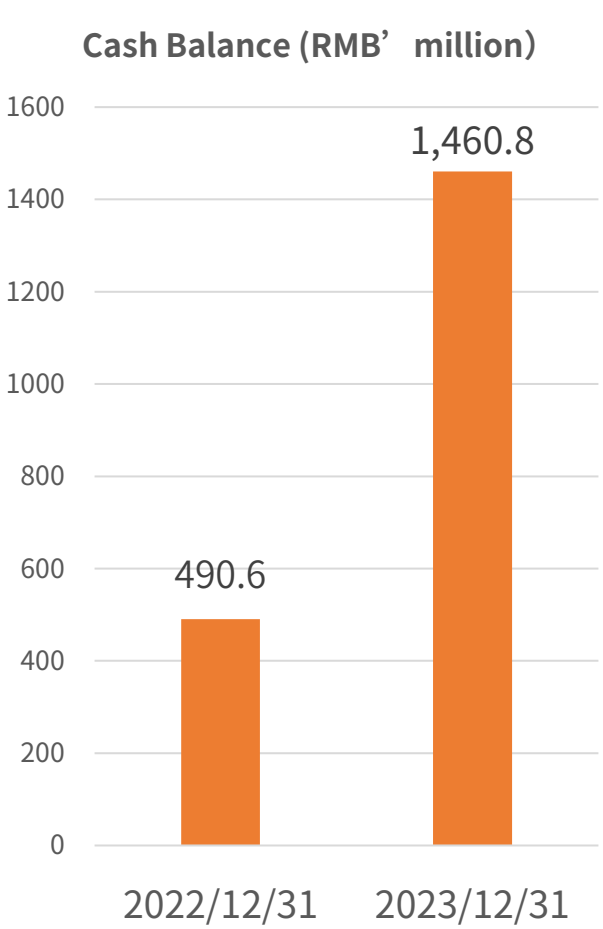
72

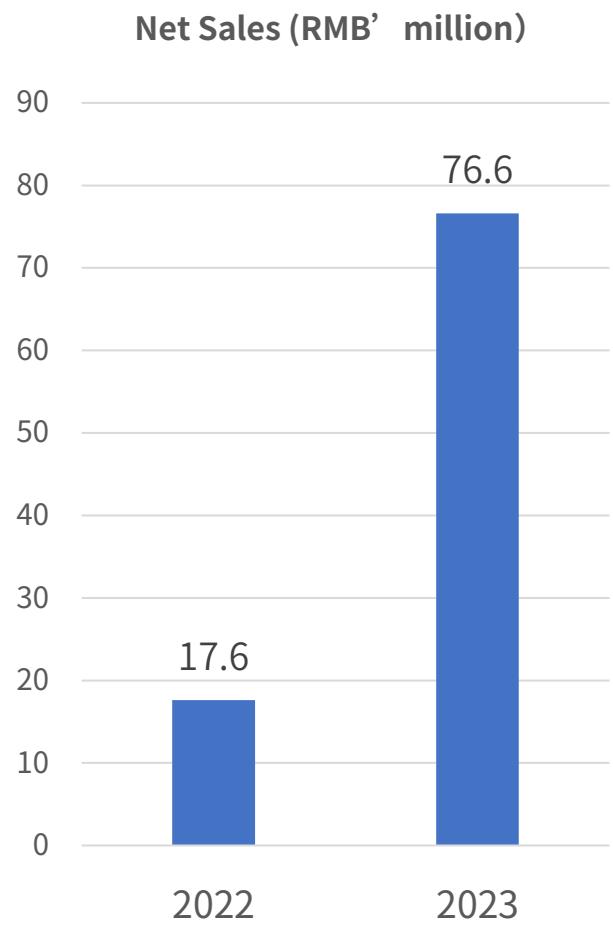
We supported Bayer with our efforts in management of 72 tier-one distributors online and offline.

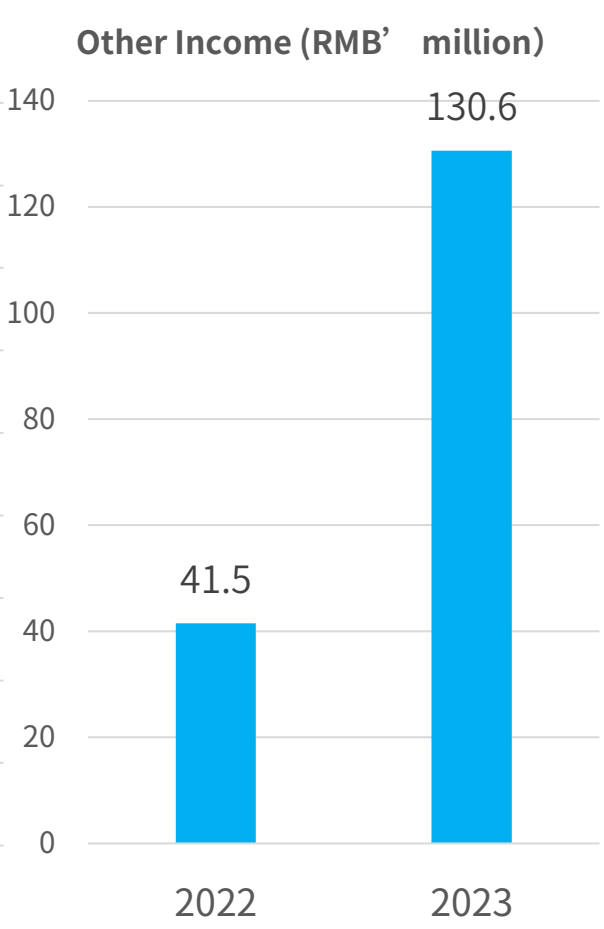
20,000

HuaTangNing has been used in China for over 14 months in approximately 20,000 T2D patients.
The collective results of our clinical trials indicate HuaTangNing has a safe, tolerable and benign profile, is effective at restoring regulation of blood glucose homeostasis through improvement in β-cell function and reduction in insulin resistance.

Business Overview







- RMB1.2 billion cash was received as non-refundable milestone payment in 2023.
- Approximately 251,000 packs of HuaTangNing have been sold, generating net sales of approximately RMB76.6 million, an increase of 335.2% compared to 2022.

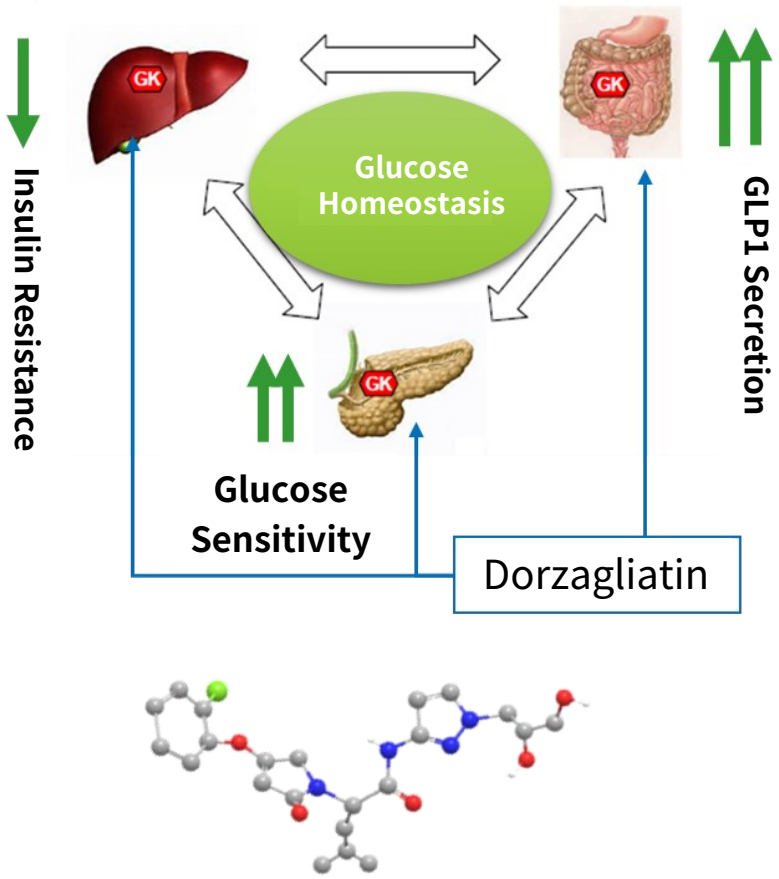
HuaTangNing (华堂宁®) Included in the 2023 NRDL

- The agreed reimbursed price is RMB5.39 per tablet, which approved for twice daily administration implies RMB10.78 per day.
- It secured the highest premium rate for innovative drugs and diabetes treatments at 46% above the next highest reimbursed anti-diabetes OAD.

HuaTangNing (华堂宁®) is a Chinese Biotech company developed and launched original innovative drug. Some patients have been verified to be effective after taking the drug for 52 weeks and can keep remission for one year.

——CCTV Host

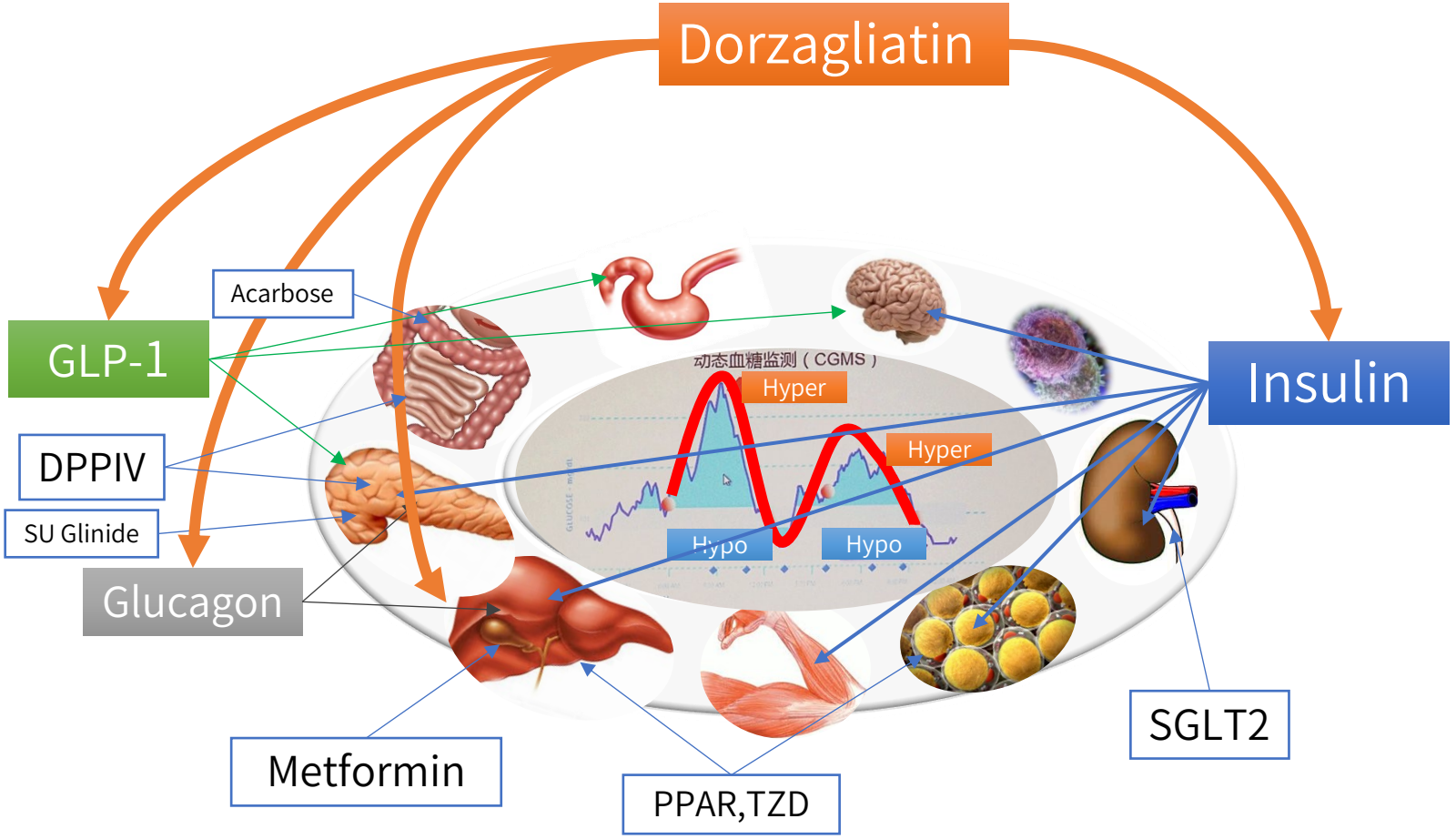
Dorzagliatin –First-In-Class Drug to Restore Glucose Homeostasis



- Repair Early-Phase Insulin Secretion: Diabetes Remission
- Repair GLP-1 Secretion: Control Obesity
- Improvement of TIR: PPG Reduction
- Reduction Insulin Resistance: Diabetes Remission
- Restoration of Glucose Homeostasis Prevention, Remission, Rejuvenation

Source: Chen L, Zhang JY et al. Nature Communications , A phase I open-label clinical trial to study drug-drug interactions of Dorzagliatin and Sitagliptin in patients with type 2 diabetes and obesity 2023, 3：1405.

Dorzagliatin in Diabetes Control



Dorzagliatin as cornerstone therapy for diabetes management and control. Combination of Dorzagliatin with other T2D therapy create synergy to restore glucose homeostasis and better health.

Hua Medicine R&D Pipeline

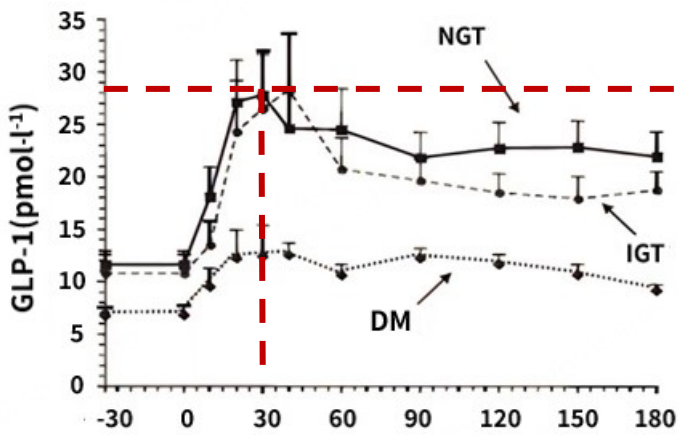
Product and Pipeline	Indication	Discovery (Pre-clinical-Phase II)	Development (Phase III)	Commercialization
Dorzagliatin	T2D –Drug naïve	→	→	→
	T2D –Metformin Tolerated	→	→	→
	RWE study for Diabetes Remission	→	→	→
	Diabetes Prevention	→		
	Neurodegeneration	→		
Dorzagliatin and Metformin FDC	T2D	→		
Dorzagliatin + Empagliflozin	DKD	→		
Dorzagliatin + Sitagliptin	T2D	→		
Dorzagliatin add on to GLP1RA	T2D and Obesity	→		
Dorzagliatin add on to Insulin	T1D	→		
2nd Generation GKA	Metabolic Disease	→		
mGLUR5 NAM	PD-LID	→		
	Drug Addiction	→		
GK NAM	Metabolic Disease	→		

Dorzagliatin Improves GLP-1 Secretion in T2D Patients with Obesity

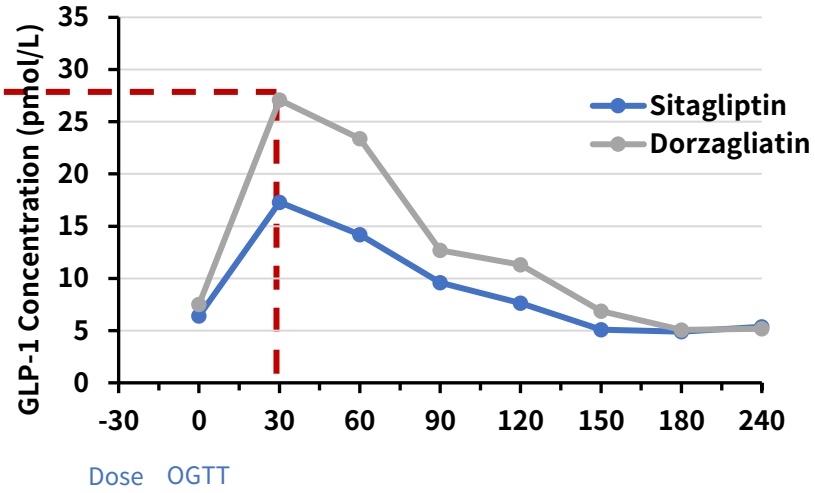
Ferrannini et al. reported that glucose-stimulated GLP-1 secretion was significantly decreased in T2D patients with obesity.

Dorzagliatin regulated GLP-1 secretion in the OGTT Study. the GLP-1 level of T2D patients with obesity was close to that of people with NGT

Defect of GLP-1 Levels of T2D



GLP-1 levels restored in T2D by Dorzagliatin



It was proven for the first time in a clinical trial that dorzagliatin improves GLP-1 secretion in diabetes and obesity patients, regulating the glucose homeostasis through dual action of insulin and GLP-1 secretion

GK: Trigger + GLP1: Amplifier → Improved Glucose Sensitivity Essential for Cure

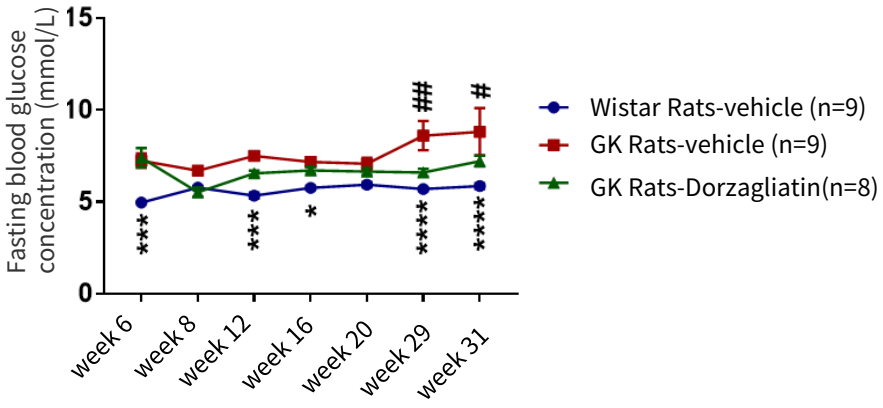
Dual actions in Glucose Sensitivity

Ferrannini, E. et al, Diabetes, 2008, 57(5), 1340-1348 Chen L Nature Communication 2023, 14: 1405

Dorzagliatin Improves Cognitive Impairment in Rats

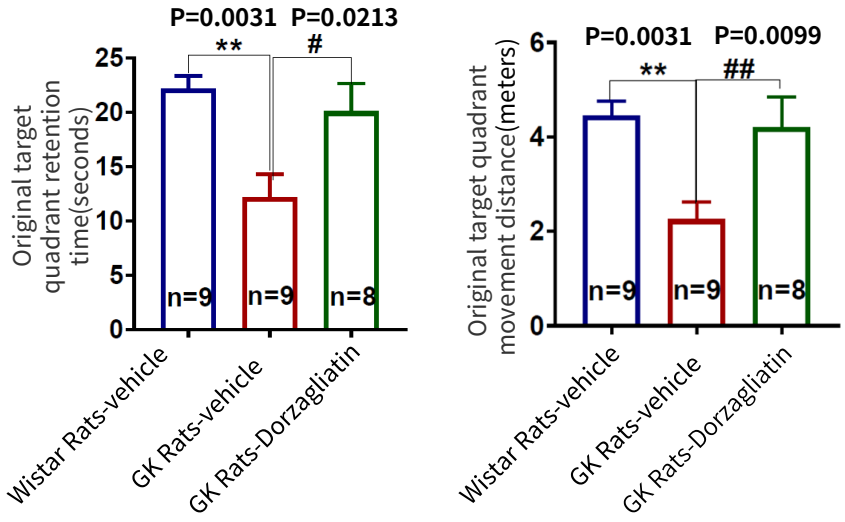
- The spontaneous non-obese diabetic Goto-Kakizaki rats exhibit increase in blood glucose and decreased memory function with age.
- With 26 weeks treatment of low-dose dorzagliatin, the trend of elevated fasting blood glucose in GK rats was significantly lower than that in the vehicle group, and it had a protective effect against the decline of memory function.

Changes of Fasting Blood Glucose in Rats with Age



GK-vehicle compared with Wistar group, *P＜0.05, ***P＜0.001, ****P＜0.0001.
GK-vehicle compared with GK-dorzagliatin group, #P＜0.05, ##P＜0.01.

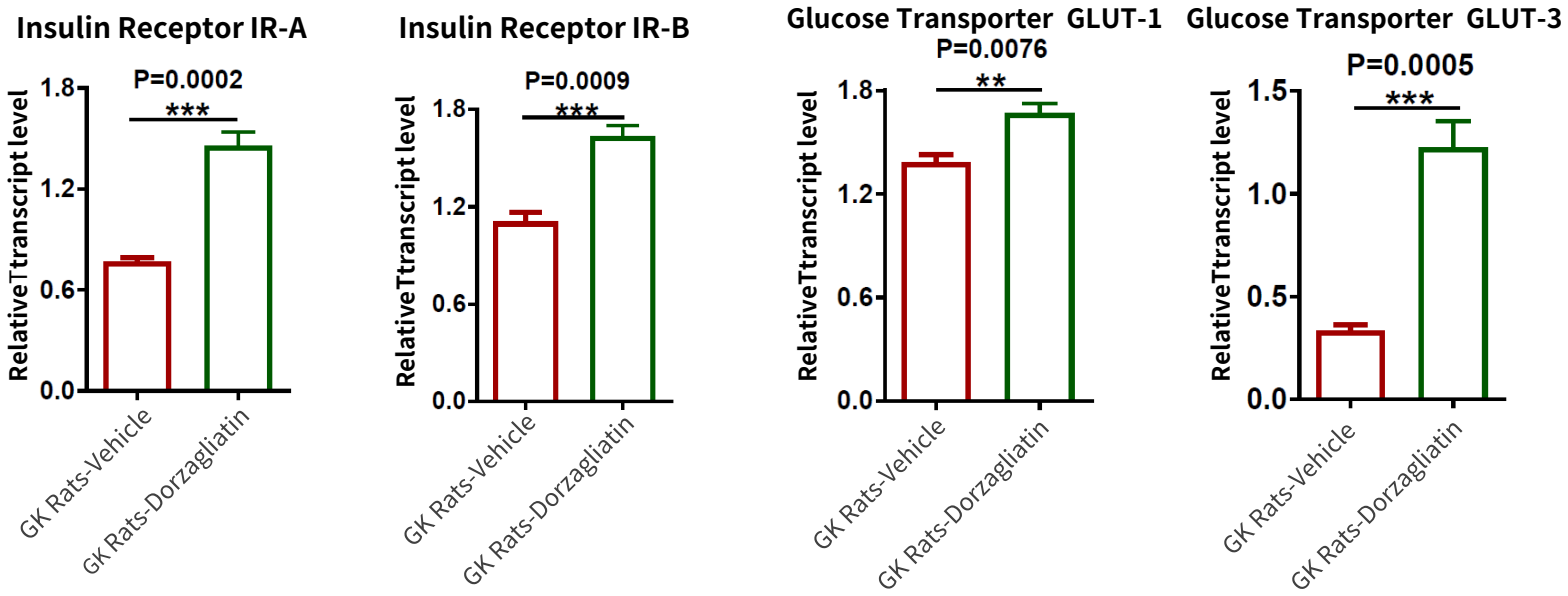
Morris Water Maze Spatial Memory Test at 33 Weeks of Age



2023 ADA Poster，247-LB

Dorzagliatin Improves Cognitive Impairment in Rats

- Dorzagliatin exerts a protective effect on memory function by protecting the glucose metabolism function in brain through prevention of decline of glucose supply and insulin sensitivity in GK rat study.



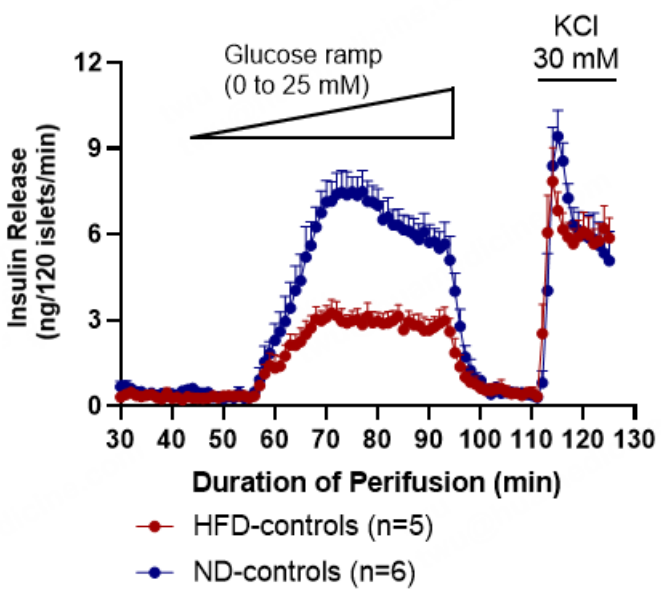
Protection from Insulin Resistance

Protection of Glucose Supply

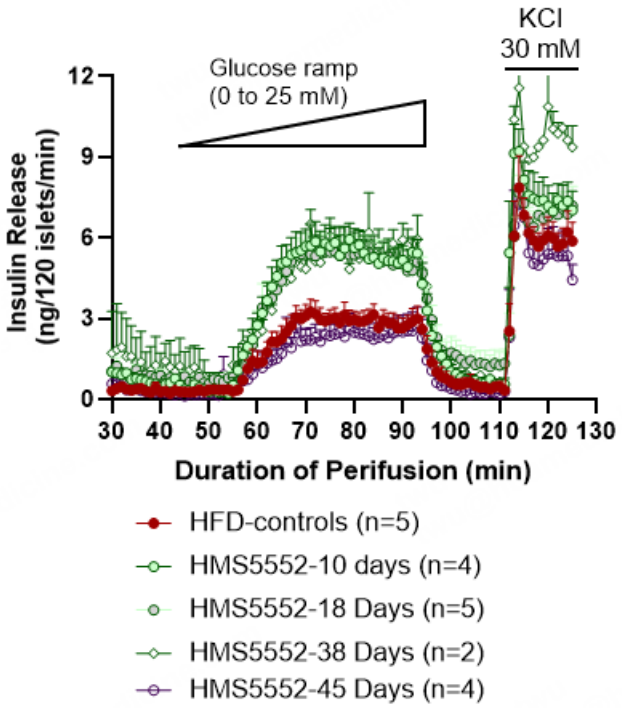
2023 ADA Poster，247-LB

Dorzagliatin Repairs Impaired Beta Cell Function of Diabetic Rats after Drug Withdrawal for 38 days

Impaired Islet Function in Obese/Diabetic Rats Induced by HFD



Dorzagliatin Achieves Long-term Repair of Islet Function

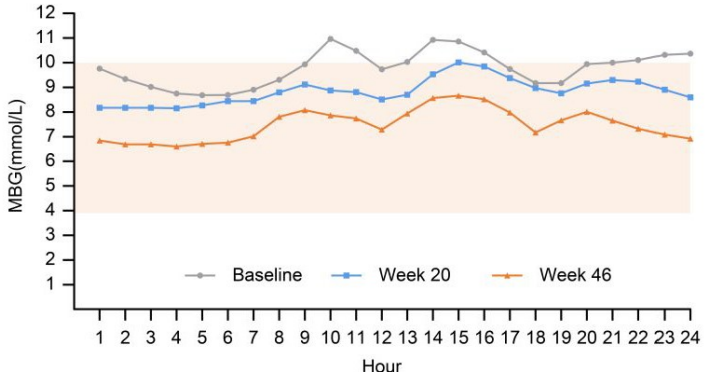


- Dorzagliatin **significantly improved impaired islet function in diabetic rats** during 19 days of administration.
- Islet function **continued to improve on day 10, day 18 , and day 38 in the absence of antidiabetic agents,** until the impairment of islet function reappeared on day 45.

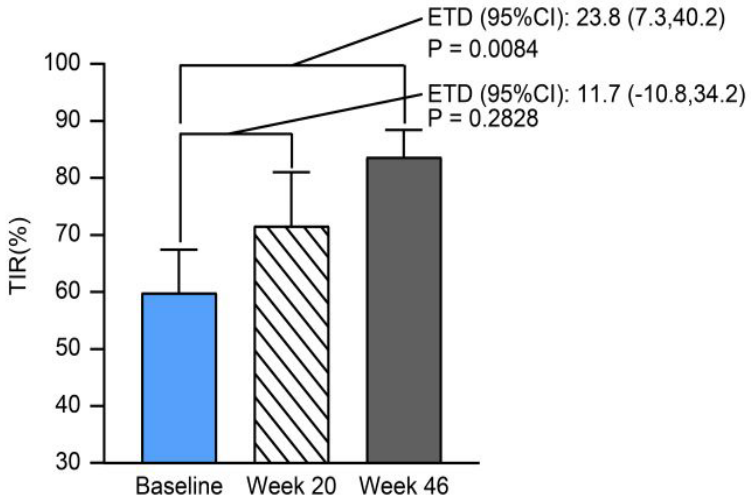
2023 ADA Poster，247-LB

Dorzagliatin improved beta cell function and TIR in T2D patients and achieves diabetes remission

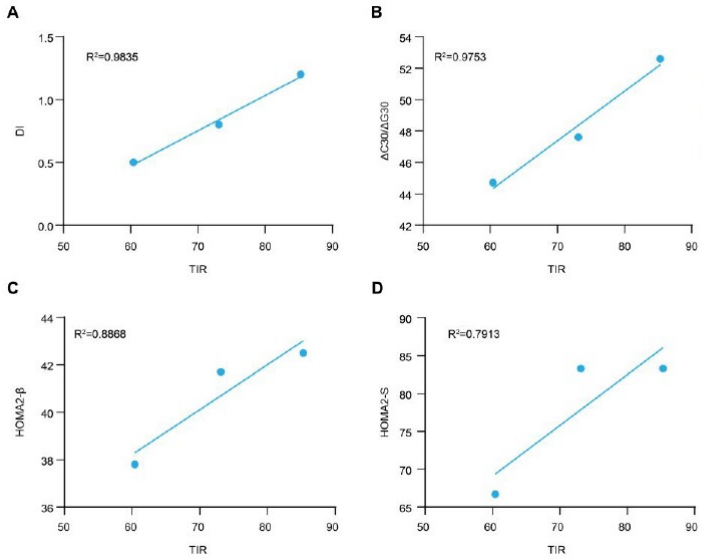
Dorzagliatin Significantly Improved Patients' Blood Glucose within 24 Hours



TIR Increased with the Duration of Treatment, Reaching 83.7% at 46 Weeks



The Islet Function was Improved Synchronously by TIR

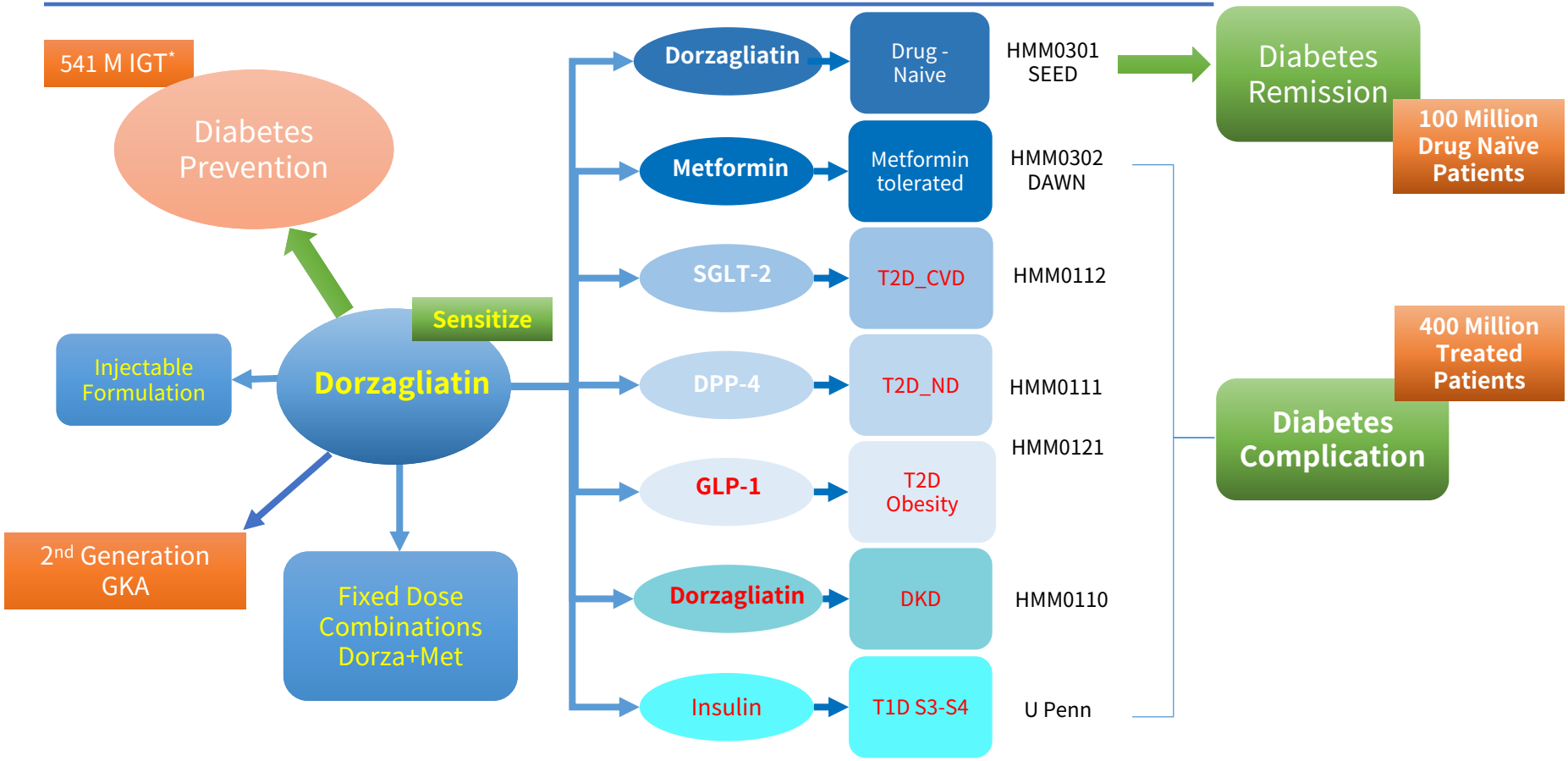


- Dorzagliatin significantly improved daily glucose homeostasis in diabetic patients.
- Long-term use of dorzagliatin brings a steady improvement in TIR.
- The patients' damaged islet function was gradually restored.

Diabetes Obes Metab.2023 Jun 29. doi: 10.1111/dom.15179

Outlook

Restore Glucose Homeostasis: New Chance of Diabetes Remission and Ultimately Prevention



- Diabetes remission by early intervention of Dorzagliatin: impact about 100 M diabetes patients
- Diabetes prevention by Dorzagliatin for IGT subjects: about 541 M IGT patients worldwide
- Diabetes complication prevention by early combination of Dorzagliatin: about 440 M T2D patients have one or more comorbidities

*IDF Diabetes Atlas 10th Edit; Leon Litwak Diabetology & Metabolic Syndrome 2013, 5: 57; Yuanyuan Cheng, Li Chen Global J Obesity, Diabetes and Metabolic Syndrome 2020, 7: 18

The 2nd Generation GKA

Acceleration in technology to advance medicine

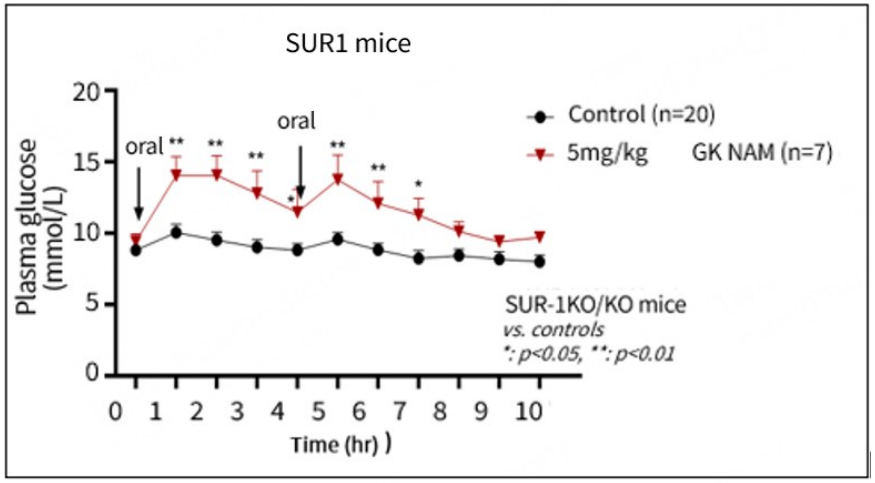
- 4 generations of insulin required ~100 years
- 4 generations of GLP-1 required less than 20 years

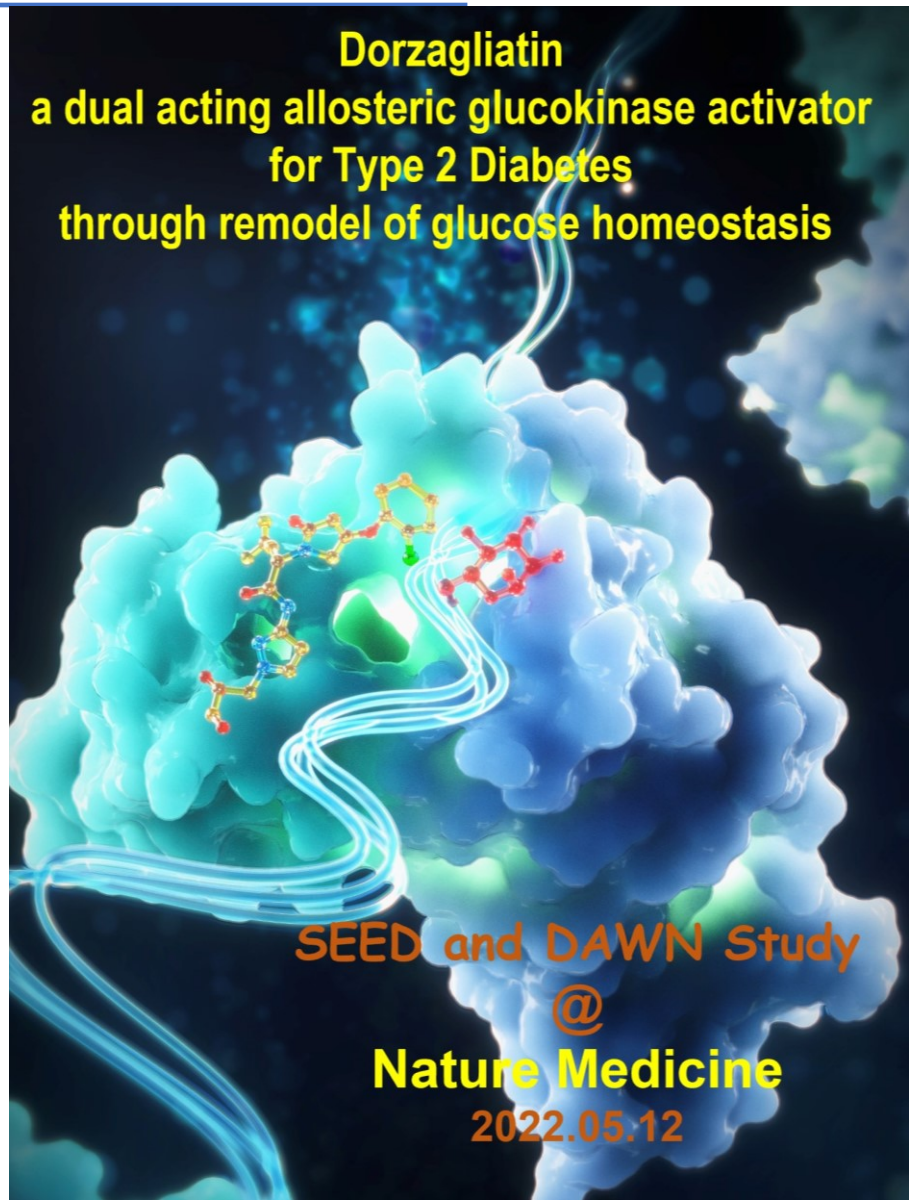
Advanced 2nd generation of GKA in Phase I in USA

- Once a day oral therapy for better homeostasis control
- New Molecular Entity with substance patent
- New formulation with increase MRT of API
- Broaden the therapeutic indication in diabetes, obesity, NASH, DKD

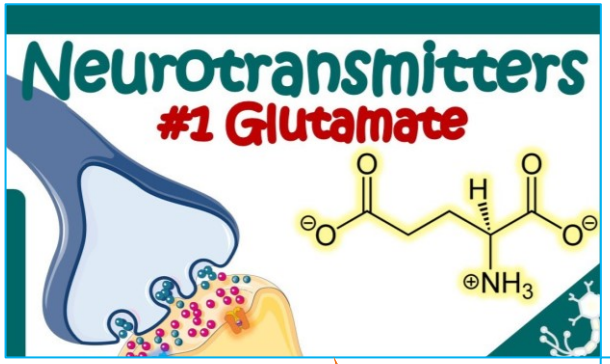
Allosteric Modulation of Glucose Sensor

- Dorzagliatin is positive allosteric modulator PAM of GK or GKA for T2DM
- Maintain GK as glucose senor in glucose homeostasis
- Negative allosteric modulator NAM of GK is useful for metabolic diseases such as CHI (Congenital Hyperinsulinemia)

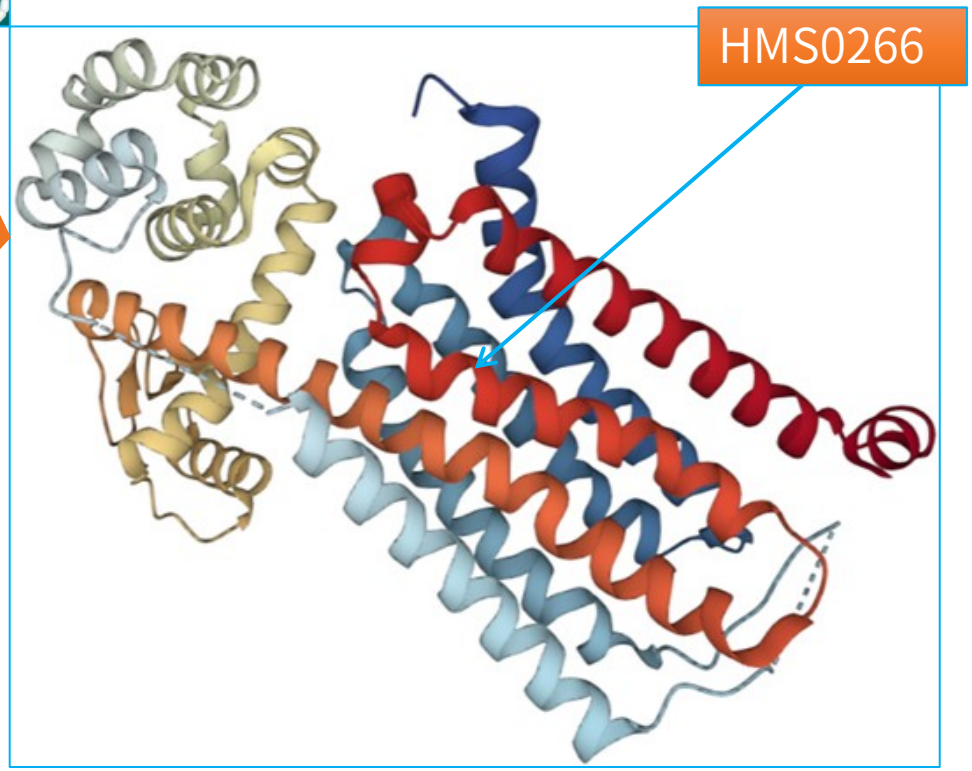




mGLUR5 NAM
Regulation of Glutamate Homeostasis



Negative allosteric modulator of mGLR5 provides opportunity in L-Dopa induced dyskinesia in Pakington's Disease patients



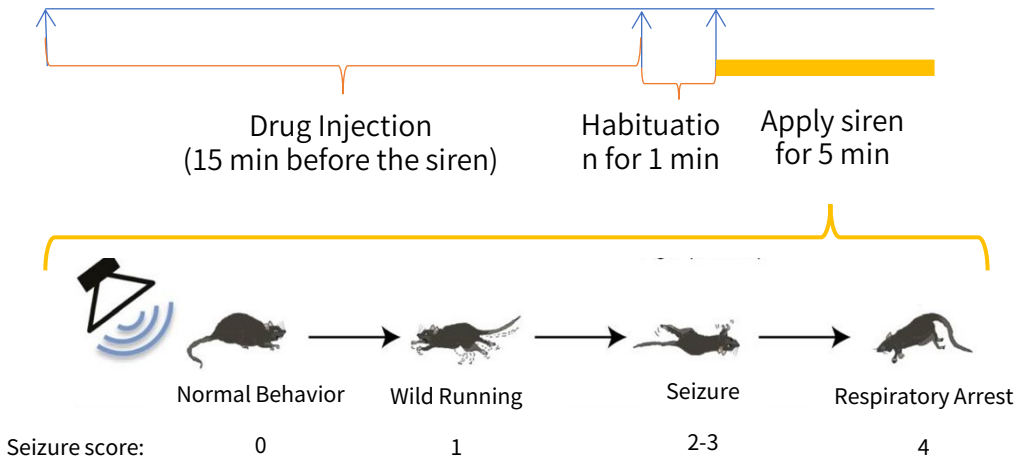
PD-LID
FXS
Drug Addiction

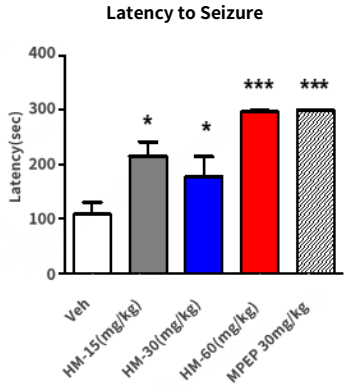
mGLUR5 NAM (HMS0266) in FXS

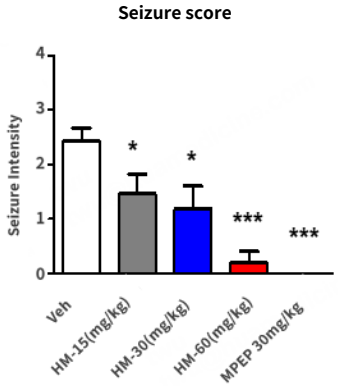
Robust assay in validated FXS model using Fmr1 KO mice reduces seizures

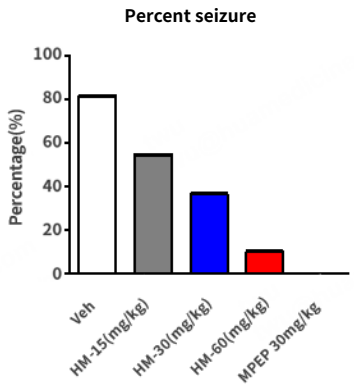
Study design

- Male Fmr1 KO mice, 21 days old
- Acute effect (study completed)
  - Single dose, i.p.
  - Treatment groups:
    - Vehicle
    - HME001 (15mg/kg)
    - HME001 (30mg/kg)
    - HME001 (60mg/kg)
    - Positive control MPEP (30mg/kg)









Conclusion from acute study:

HME demonstrated dose-dependent reduction of AGS in Fmr1 KO mice

- Decreased seizure scores
- Increased latency to seizure
- Decreased percentage of animals experiencing seizure

Jin XW, Chen L Intractable & Rare Diseases Research 2025; 4(1): 39-48

Financial Section

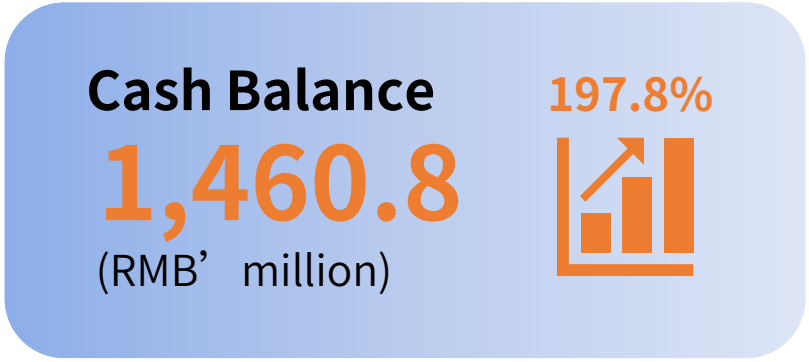
Financial Summary

Cash Balance: RMB1,460.8 million of cash at 12/31/2023 vs. RMB490.6 million at 12/31/2022.

Total cash increase of RMB970.2 million, consisted of

- Net cash from operating activities was RMB889.4 million
- Net cash from investing activities was RMB8.1 million
- Net cash from financing activities was RMB69.1 million
- Net effect of exchange rate changes was RMB3.7 million

Net cash from operating activities of RMB889.4 million consisted mainly of RMB1.2 billion in milestone payments received from Bayer based on the achievement of milestones, RMB106.3 million in sales receipts, and RMB456.4 million in payments for the development of research and development activities, the commercialization of HuaTangNing, production activities and administrative expenses.



Financial Summary- continued

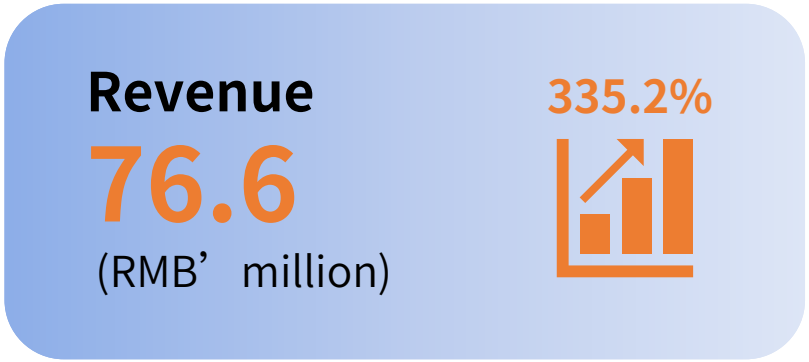
Revenue: RMB76.6 million in the calendar year 2023.

For the year ended December 31, 2023, approximately 251,000 packs of HuaTangNing (华堂宁®) were sold, generating sales of approximately RMB76.6 million, representing approximately a 335.2% increase in revenue compared with 2022. From first commercial launch through December 31, 2023, approximately 304,000 packs of HuaTangNing (华堂宁®) were sold, generating sales of approximately RMB94.2 million, i.e., the initial out-of-pocket stage.

HuaTangNing (华堂宁®) was successfully included in China’s NRDL at the end of 2023. The sales of HuaTangNing (华堂宁®) is expected to have a huge increase in the following year.

Gross profit: of approximately RMB37.4 million and a gross margin of 48.8%.

Our gross margin increased by 5.1% as compared to 43.7% for the year ended December 31, 2022, which was primarily due to sufficient supply and increased sales volume, leading to the decreased unit production expense and decreased unit fixed cost. As our commercialization scale increases, the unit cost is expected to continually decrease and the gross margin is expected to continually increase to a more normalized rate.



Financial Summary- continued

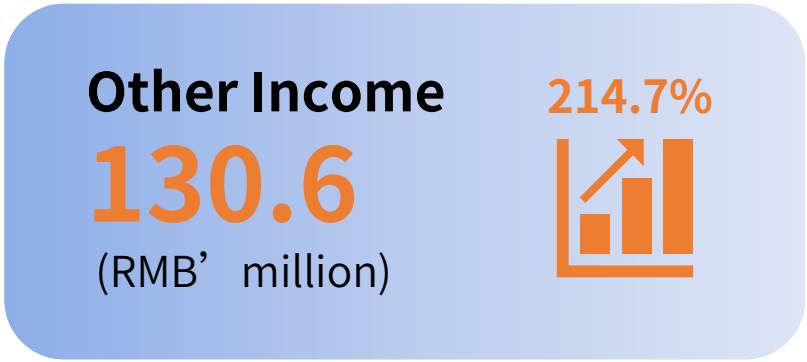
Other income: of RMB130.6 million in the year of 2023.

Our other income increased by RMB89.1 million to RMB130.6 million for the year ended December 31, 2023 from RMB41.5 million for the year ended December 31, 2022, which was mainly attribute to an increase of RMB54.3 million in Bayer milestone income, RMB22.5 million in government grants and RMB12.3 million in bank interest income from short-term deposits.

Loss before tax Loss before tax increased by approximately RMB7.7 million or approximately 4% to approximately RMB211.2 million for the year ended December 31, 2023, compared with the year ended December 31, 2022.

Selling expenses: of RMB79.8 million in the year of 2023.

Our selling expenses was RMB79.8 million for the year ended December 31, 2023, which consisted primarily of RMB34.5 million of employee compensation, RMB29.7 million of promotion expense and RMB15.6 million of meeting expense, consulting expense, logistics expense and other related expenses.



Financial Summary- continued

Research and development expenses increased by RMB42.0 million to RMB171.5 million for the year ended December 31, 2023 from RMB129.5 million for the year ended December 31, 2022.

- An increase of RMB3.4 million for dorzagliatin clinical trials from RMB4.9 million for the year ended December 31, 2022 to RMB8.3 million for the year ended December 31, 2023, which was primarily attribute to the multicenter post-marketing observational study conducted in year 2023, which was designed to evaluate the long-term safety of dorzagliatin in patients with T2D;
- An increase of RMB11.8 million for dorzagliatin non-clinical studies from RMB4.4 million for the year ended December 31, 2022 to RMB16.2 million for the year ended December 31, 2023, which was primarily attribute to the new pre-clinical studies of second generation glucokinase activator conducted in the United States in the year of 2023;
- An increase of RMB43.9 million in chemical, manufacturing, and control expenses from RMB9.8 million for the year ended December 31, 2022 to RMB53.7 million for the year ended December 31, 2023. We focused on the scale up and process development for our existing production line, process validation for intermediate product and additional validations and research for capacity expansion in the year of 2023. In the year of 2022, we focused on the process validation, drug substance and production for clinical trial which was required by the NMPA and transitioned to commercial production after NDA approval;
- A decrease of RMB22.3 million in labor cost from RMB84.3 million for the year ended December 31, 2022 to RMB62 million for the year ended December 31, 2023, which was primarily attribute to the labor resource reallocation and the decrease of share-based payment under the accelerated amortization method; and
- An increase of RMB4.1 million in other expenses from RMB23.7 million for the year ended December 31, 2022 to RMB27.8 million for the year ended December 31, 2023, which was primarily attribute to the increased travelling expense and meeting due to new research projects conducted in the year of 2023.

Financial Summary- continued

Administrative expenses decreased by RMB5.8 million to RMB124.1 million in the year ended December 31, 2023 from RMB129.9 million in the year ended December 31, 2022

- A decrease of RMB5.6 million in labor cost, which was primarily attribute to the labor resource reallocation of marketing department to selling expense from first commercial sales and the decrease of share-based payment under the accelerated amortization method;
- A decrease of RMB3.7 million in marketing and consultant fee, which was mainly due to less consulting related to new drug application was conducted during the year ended December 31, 2023;
- An adjustment for the increase of RMB1.5 million in recruitment expense due to our recruitment strategy.

Administrative Expenses **4.5%**

124.1

(RMB' million)

Financial Summary- continued

Revenue

76.6

(RMB' million)

335.2%

Gross Profit

48.8%

5,1%

Cash Balance

1,460.8

(RMB' million)

197.8%

490.6 at 12/31/2022
+ 889.4 from operating activities
+ 8.1 from investing activities
+ 69.1 from financing activities
+ 3.7 exchange rate changes

Other Income

130.6

(RMB' million)

214.7%

65.1 Bayer milestone income
49.0 government grants
16.5 bank interest income

Financial Summary- continued

Loss Before Tax 3.8%

211.2

(RMB' million)

Administrative Expenses 4.5%

124.1

(RMB' million)

R&D Expenses 32.4%

171.5

(RMB' million)

8.3 clinical trials
16.2 non-clinical studies
53.7 CMC
62.0 labor cost
3.6 licensing and patent fee
27.8 others

Selling Expenses 421.6%

79.8

(RMB' million)

29.7 promotion expense
34.5 employee compensation
15.6 meeting, consulting, logistics and other related expenses

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