

# Response to Professor Hu Jinyu's Letter [Response to Letter]

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## Dear editor

We sincerely appreciate Professor Jinyu Hu's interest in our research and highly commend his academic enthusiasm in the field of traditional Chinese medicine (TCM) research on Gegen Qinlian Decoction (GQD) for type 2 diabetes mellitus (T2DM) treatment.<sup>1</sup>

GQD has been a long-standing research focus of our team. Through clinical observations and case studies, we have validated its glucose-lowering potential, including reporting its significant efficacy in T2DM outpatients, and further clarifying its dose-response relationship.<sup>2,3</sup> Our recently published clinical trials employed a rigorous randomized controlled design to investigate the dose-effect relationship of the main drug (*Puerariae Lobatae Radix* or *Coptidis Rhizoma*) in GQD. All participants received standardized lifestyle interventions and exercise guidance to minimize confounding factors. Beyond clinical outcomes, we have deeply investigated GQD's mechanisms of action. It exerts multi-target synergistic effects along the "Bacteria-Mucosal Immunity-Inflammation-Diabetes" axis, modulating microbial composition by promoting beneficial bacteria including butyrate-producing species (eg, *Faecalibacterium*), suppressing pro-inflammatory factors, and restoring intestinal mucosal barrier function, thereby ameliorating T2DM metabolic disorders.<sup>4-8</sup>

We fully agree with Professor Hu's perspectives on future research directions. Setting a positive drug control group (eg, metformin) would allow for a more direct evaluation of GQD's hypoglycemic power. Conducting long-term follow-up studies could also reveal GQD's potential benefits against diabetic complications (eg, nephropathy, cardiovascular events). These future research directions will further strengthen the clinical evidence chain for GQD.

Once again, we extend our gratitude to Professor Hu for his attention to our research and his dedication to studies on GQD in T2DM treatment. The modernization of TCM necessitates multidisciplinary collaboration and sustained exploration. We eagerly anticipate working alongside academic peers to advance the precise application of GQD in diabetes management.

## Disclosure

The authors report no relevant commercial or financial conflicts of interest in this communication.

## References

1. Kang XM, Jin D, Ji HY, et al. The clinical efficacy of gegen qinlian decoction in treating type 2 diabetes is positively correlated with the dose of coptidis rhizoma: three randomized, doubleblind, dose-parallel controlled clinical trials. *Drug Des Devel Ther.* 2024;18:5573–5582. doi:10.2147/DDDT.S487315
2. Zhao LH, Lian FM, Ji HY, et al. Clinical examples of treatment for type 2 diabetes by professor Tong Xiao-lin using Ge-Gen-Qin-Lian decoction. *Chin J Exp Tradit Med Formul.* 2011;17:249–251.

3. Tong XL, Zhao LH, Lian FM, et al. Clinical observations on the dose-effect relationship of gegen qinlian decoction on 54 out-patients with type 2 diabetes. *J Tradit Chin Med.* **2011**;31:56–59. doi:10.1016/S0254-6272(11)60013-7
4. Gao ZZ, Li QW, Wu XM, et al. new insights into the mechanisms of Chinese herbal products on diabetes: a focus on the “bacteria-mucosal immunity-inflammation-diabetes”. *axis. j Immunol res.* **2017**;2017:1813086.
5. Xu J, Lian F, Zhao L, et al. Structural modulation of gut microbiota during alleviation of type 2 diabetes with a Chinese herbal formula. *ISME J.* **2015**;9:552–562. doi:10.1038/ismej.2014.177
6. Xu XZ, Gao ZZ, Yang FQ, et al. Antidiabetic effects of gegen qinlian decoction via the gut microbiota are attributable to its key ingredient berberine. *Genomics Proteomics Bioinformatics.* **2020**;18(6):721–736. doi:10.1016/j.gpb.2019.09.007
7. Gao ZZ, Zhang WH, He LS, et al. Double-blinded, randomized clinical trial of gegen qinlian decoction pinpoints faecalibacterium as key gut bacteria in alleviating hyperglycemia. *Precis Clin Med.* **2024**;7(1):pbae003. doi:10.1093/pcmedi/pbae003
8. Tian JX, Bai BB, Gao ZZ, et al. Alleviation effects of GQD, a traditional Chinese medicine formula, on diabetes rats linked to modulation of the gut microbiome. *Front Cell Infect Microbiol.* **2021**;11:740236. doi:10.3389/fcimb.2021.740236

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