











suggested dysfunction of pancreatic beta cells was at the mercy of ubiquitin-proteasome system.<sup>[21]</sup> With all this in mind, hereby we provide evidence that the ubiquitin proteasome may be involved in Smad/TGF- $\beta$  signaling in DN which caused by the type 2 diabetes.

In this research, the water-extraction of *Astragali Radix* and *Lycopi Herba* can improve the clinical symptoms for the DN rats which are caused by STZ, and contribute to identifying features of TGF- $\beta$ -Smad-UPP pathway that may be crucial for the onset and progression of the disease. Whether this concept is applicable to DN will require specifically designed studies.

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