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HDAC inhibitor chidamide synergizes with venetoclax to inhibit the growth of diffuse large B-cell lymphoma via down-regulation of MYC, BCL-2, and TP53 expression

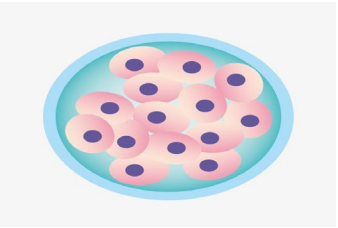
Key words: Diffuse large B-cell lymphoma; HDAC inhibitor; Venetoclax; MYC; BCL2; TP53

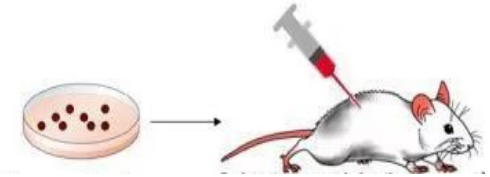
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Research Summary

This study mainly evaluated potential anti-tumor effects of a regimen combining chidamide with venetoclax in MYC+/BCL2+ DLBCL in the following aspects:

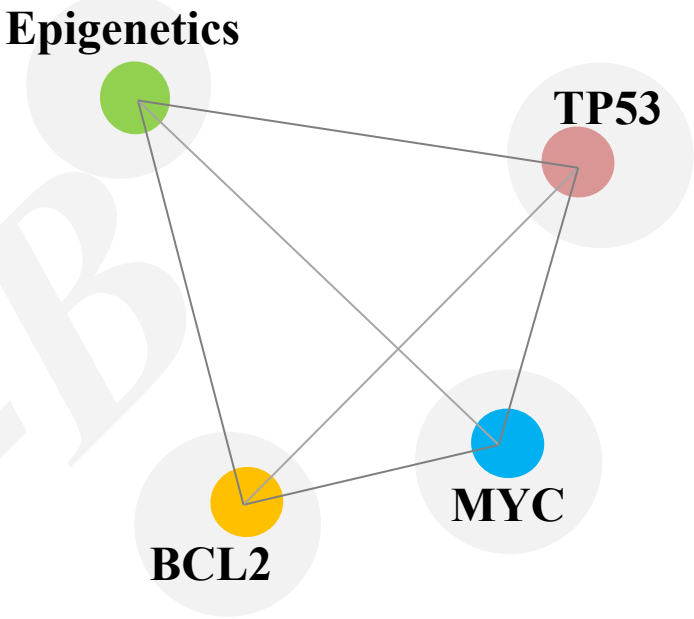
- **Cell proliferation**
- **Cell apoptosis and cell cycle**
- **Regulation of gene transcription and translation**
- **Xenograft mouse model**







Innovation points



- **Introduction** of the effect of chidamide and venetoclax in DLBCL.

- **Summary** of the most updated research progress about chidamide and venetoclax in DLBCL therapeutic studies.

- **Emphasis** of the synergistic inhibitory effect in DLBCL and the regulation of MYC, BCL2 and TP53 by chidamide and venetoclax.

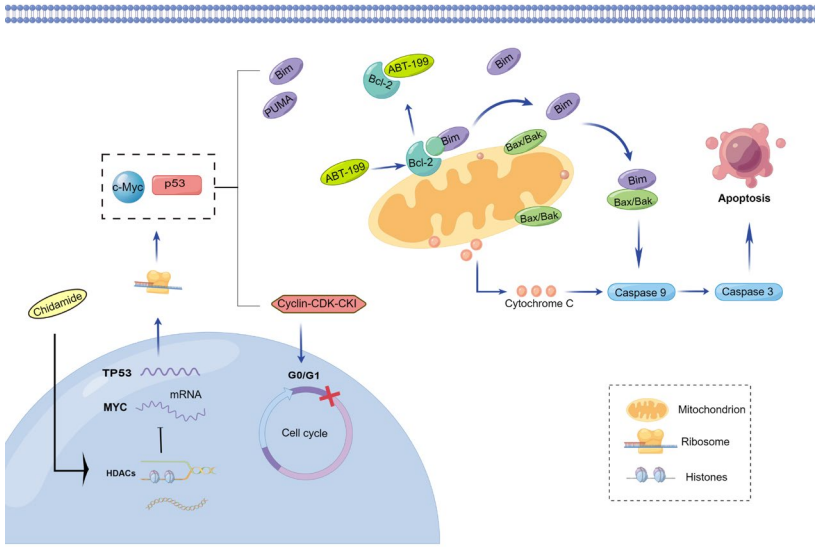


Figure 8

Innovation points

A series of comprehensive figures were generated to summarize the effect of chidamide and venetoclax in DLBCL.

Figure 1 | The correlation between BCL2 and HDAC genes in DLBCL.

Figure 2 | Effects of chidamide or venetoclax on DLBCL cells.

Figure 3, 4 | Chidamide enhanced the effect of venetoclax on apoptosis in SUDHL-4 and DB cells.

Figure 5 | The effects of chidamide and venetoclax treatment on the transcriptome of DLBCL cells.

Figure 6 | Effects of chidamide and venetoclax on c-Myc, TP53, BCL2, and acetyl-histone.

Figure 7 | Effect of chidamide and venetoclax in a DLBCL-cell xenograft mouse model.

Figure 8 | Mechanism of chidamide and venetoclax treatment.

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