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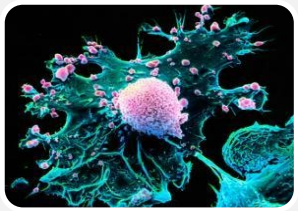
Roles of miRNA and lncRNA in triple-negative breast cancer

Key words: Biomarker, Long non-coding RNA, MicroRNA, Regulation mechanism, Triple-negative breast cancer

Research Summary

This review summarizes the role of miRNA and lncRNA in the progression, diagnosis, and neoadjuvant chemotherapy of triple negative breast cancer, they can provide new insights for early diagnosis and treatment which act as novel anticancer targets. The main contents of this paper include the following aspects:

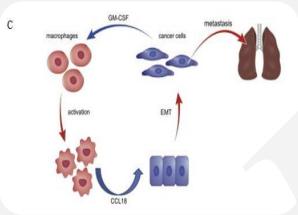


●The role of lncRNA in triple negative breast cancer

1.lncRNA regulates gene expression at the transcriptional level.

2.lncRNA regulates gene expression at the post-transcriptional level.

3.lncRNA in triple negative breast cancer diagnosis



●MiRNA involved in TNBC progression

1.Epithelial-to-mesenchymal transition

2.Migration, invasion and metastasis

3.miRNA in triple negative breast cancer diagnosis

●The role of miRNA and lncRNA in neoadjuvant chemotherapy

●The clinical significance of miRNA and lncRNA in breast cancer

Innovation points

Using a vivid figureto explain the mechanism of lncRNA in the nucleus and cytoplasm.

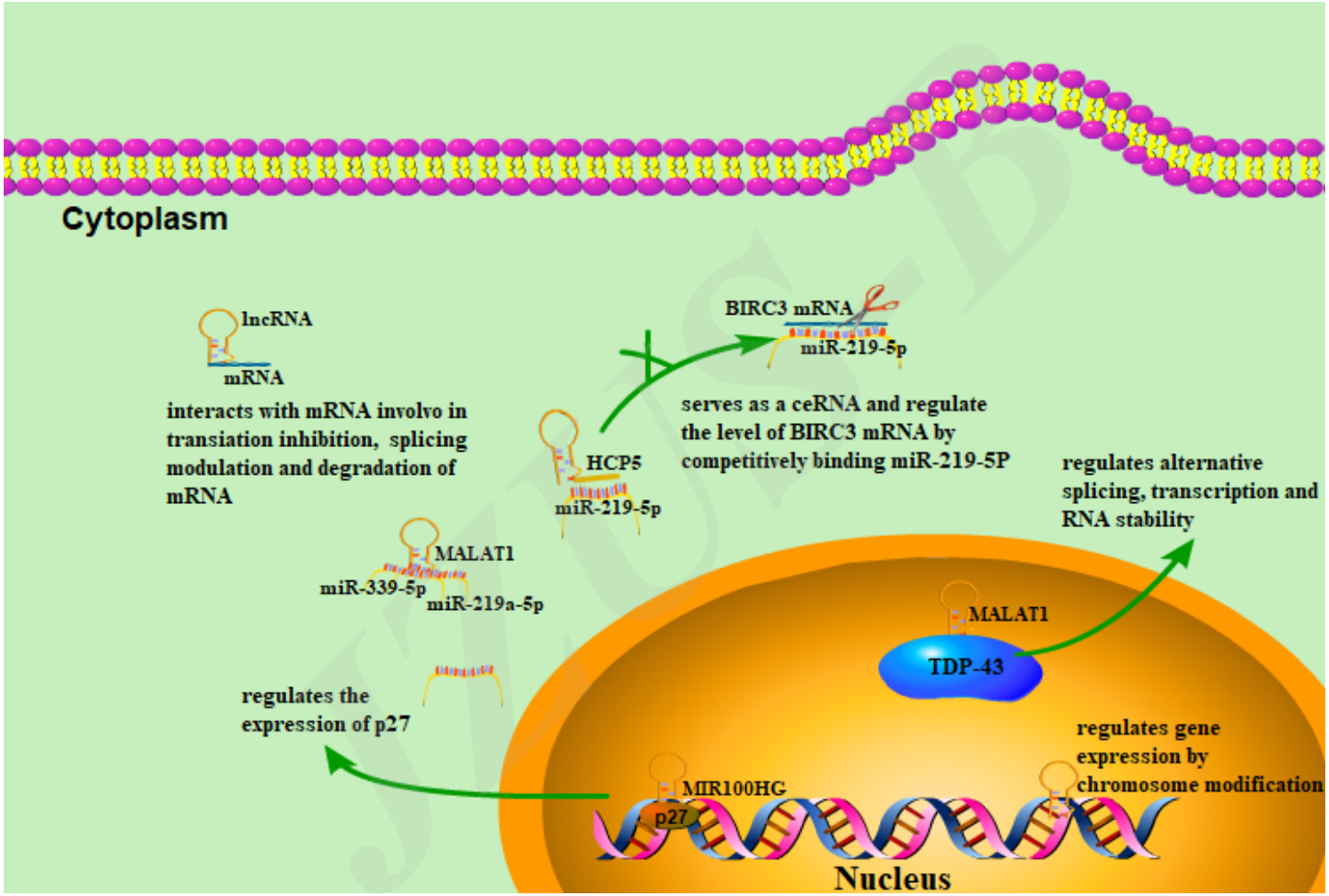


Fig1. lncRNAs can regulate gene expression both in the nucleus and cytoplasm

Innovation points

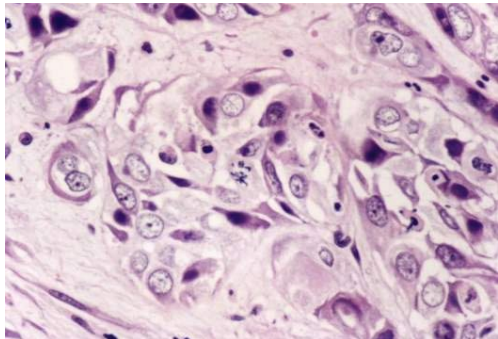
A series of comprehensive tables were generated to summarize lncRNA and miRNA associated with triple-negative breast cancer.

Table 1 | The ectopic expression of oncogenic lncRNA in TNBC

Table 2 | The ectopic expression of antitumor lncRNA in TNBC

Table 3 | The ectopic expression of oncogenic miRNA in TNBC

Table 4 | The ectopic expression of antitumor miRNA in TNBC



Thank you!