



XUELI ZHANG comes from Shanxi, China. His research interest is systems medicine study on colorectal cancer (CRC) biomarkers.

As the development of experiment technology and the advent of the era of big data, huge amounts of biomedicine information, including CRC biomarkers, have been generated. In this study, a comprehensive CRC biomarker database (CBD) was established, and some common rules of CRC biomarkers in pathways and networks were found from the CBD. Based on the topology features of the recorded colon cancer diagnosis biomarkers, CHGA was predicted as a promising biomarker on the protein-protein interaction network using machine learning, and further confirmed by immunohistochemistry on the tissue samples. In addition, three microRNA (miRNA) biomarkers were predicted by a novel bioinformatic model on miRNA-mRNA interaction network, using the RNA-seq and microarray data.

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