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- 1276 Discovery of a selective TRF2 inhibitor FKB04 induced telomere shortening and senescence in liver cancer cells
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- 1287 Quantitative systems pharmacology modeling of HER2-positive metastatic breast cancer for translational efficacy evaluation and combination assessment across therapeutic modalities *Open*
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- 1305 Proteomics analysis of histone deacetylase inhibitor-resistant solid tumors reveals resistant signatures and potential drug combinations
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Brief Communication

- 1316 A novel mouse model of familial combined hyperlipidemia and atherosclerosis
Mei-jie Chen, Yi-tong Xu, Lu Sun, Zhi-hua Wang, Peter J. Little, Li Wang, Xun-de Xian, Jian-ping Weng and Suo-wen Xu

Cover

In this cover article, Zhou et al. constructed a novel mechanistic quantitative systems pharmacology model describing the underlying pathophysiological processes of HER2⁺ BC, from ligand-receptor binding to downstream signaling and finally to tumor growth, while incorporating the distinct modalities and mechanisms of various state-of-the-art therapeutics. A large variety of in vitro and in vivo experimental data was used during model calibration and validation, achieving a quantitative and accurate description of cellular signaling, time-response, dose-response, and tumor growth kinetics. In a high-throughput manner, this multiscale QSP model platform enabled researchers to probe into the efficacy of different therapeutic strategies at the preclinical level, generate new hypothesis regarding best treatment combinations to overcome resistance, and suggested important directions for future translational drug research and model-informed drug development. See the article in pages 1287–1304.

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