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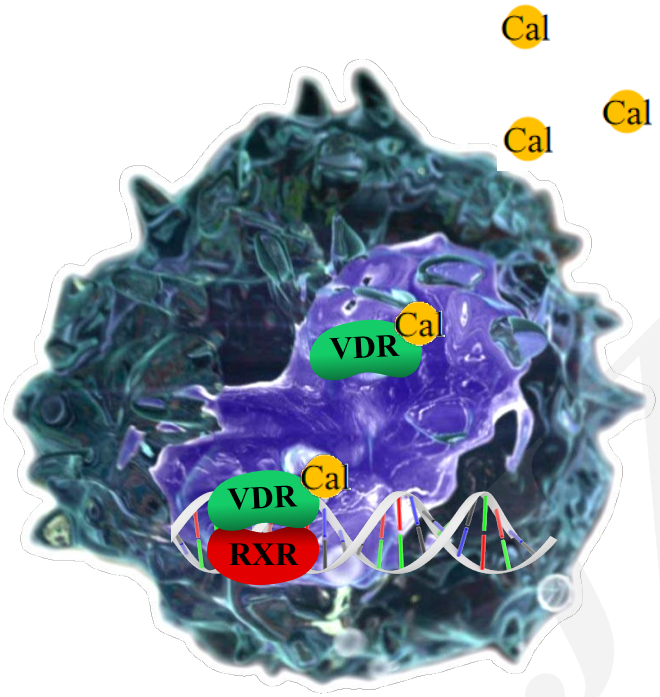
Vitamin D receptor (VDR) mediates the quiescence of activated hepatic stellate cells (aHSCs) by regulating M2 macrophage exosomal smooth muscle cell-associated protein 5 (SMAP-5)

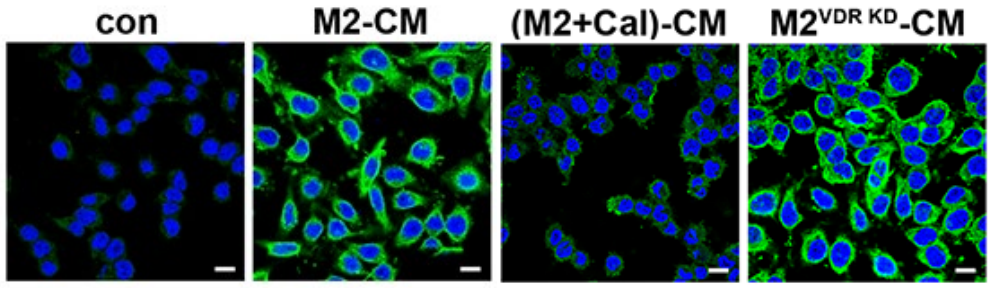
Key words: Hepatic fibrosis; Hepatic stellate cell; Macrophage; Exosome; Vitamin D receptor; Smooth muscle cell-associated protein 5

Research Summary

This research found that

M2 macrophages can promote HSC activation, agitating VDR can inhibit the effect of M2 on HSCs.

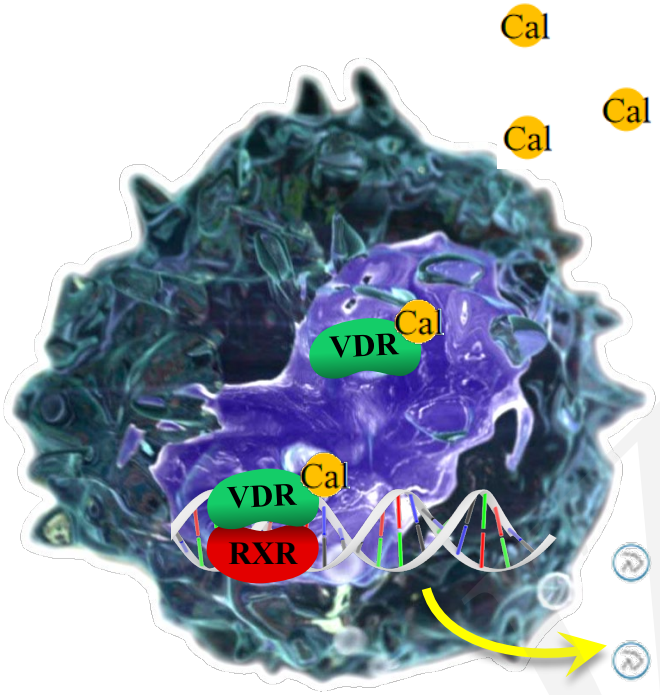


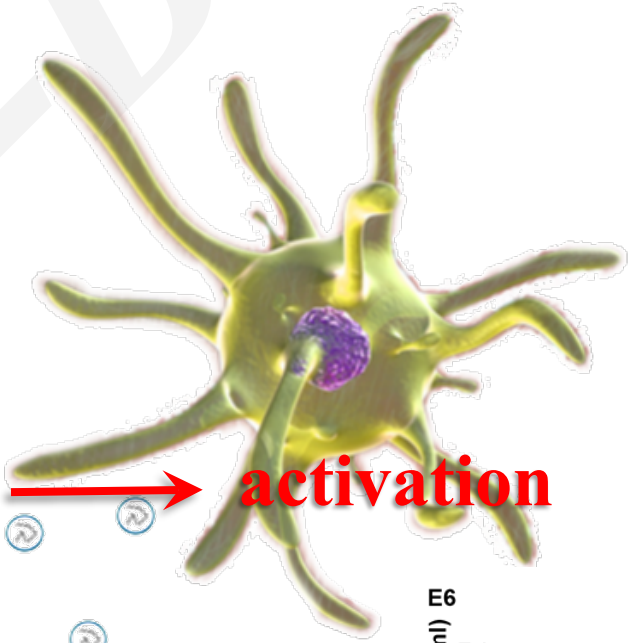


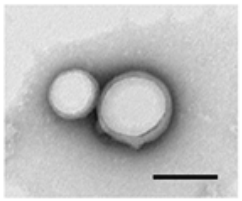
Research Summary

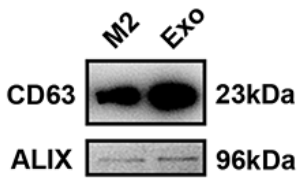
This research found that

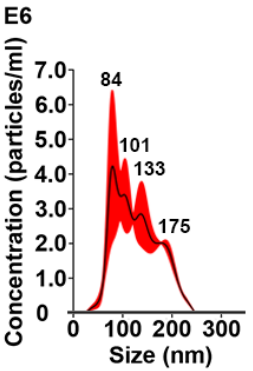
M2 macrophages promoted HSC activation via exosomes.





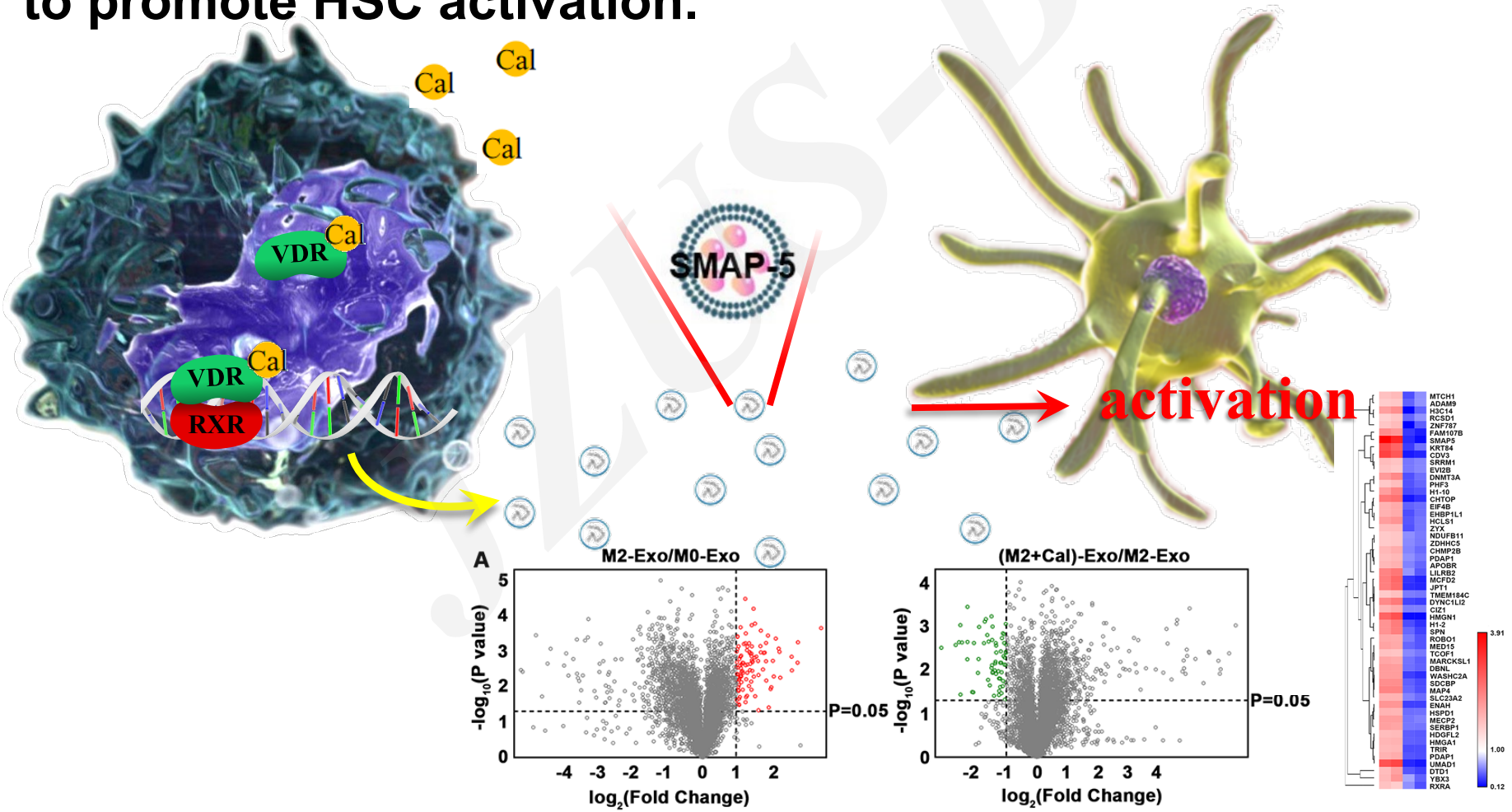






Research Summary

This research found that SMAP-5 was the key protein in M2 exosomes to promote HSC activation.



Research Summary

This research found that M2-exosomal SMAP-5 promoted HSC activation by increasing autophagy flux.