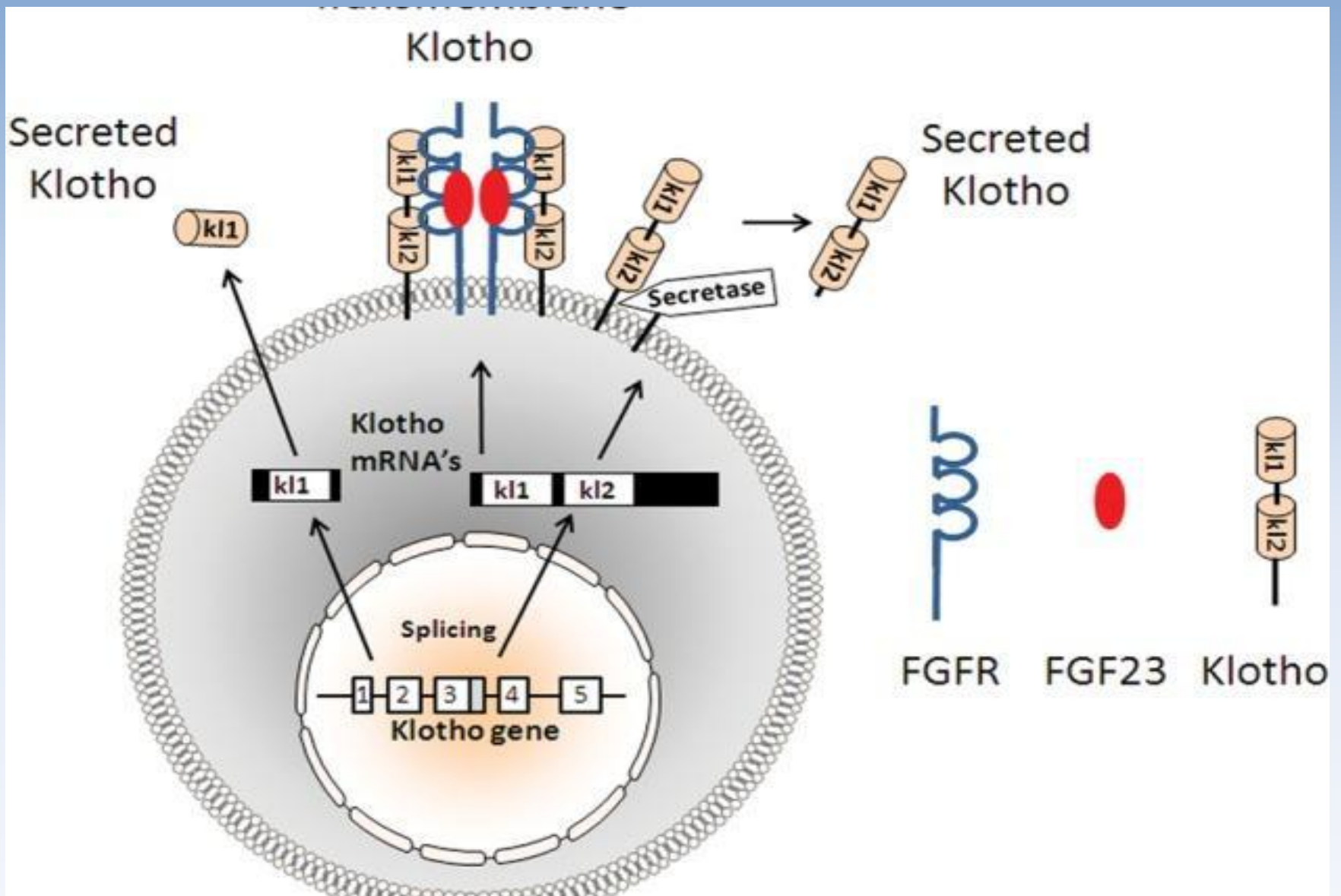
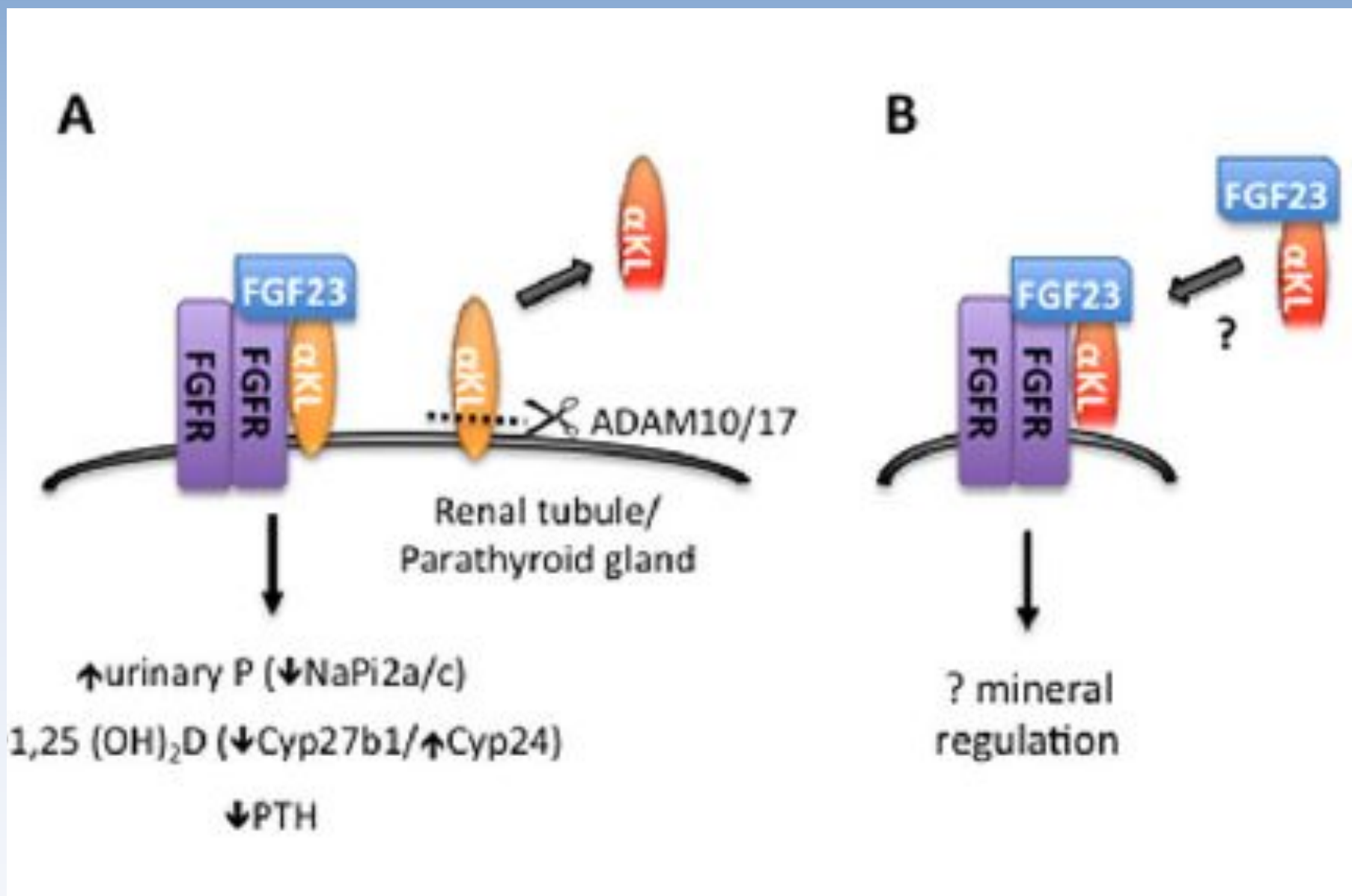


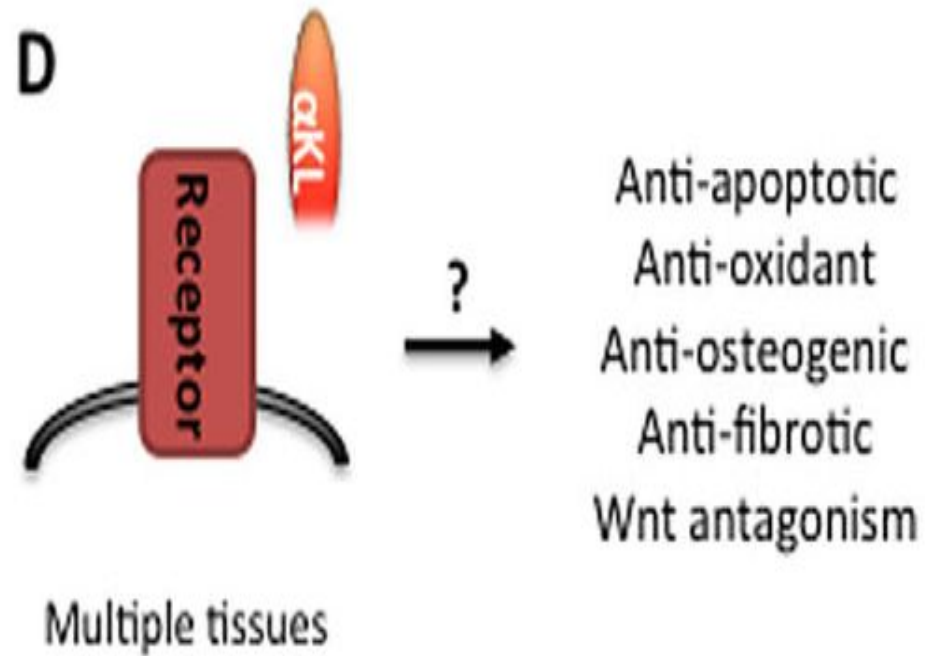
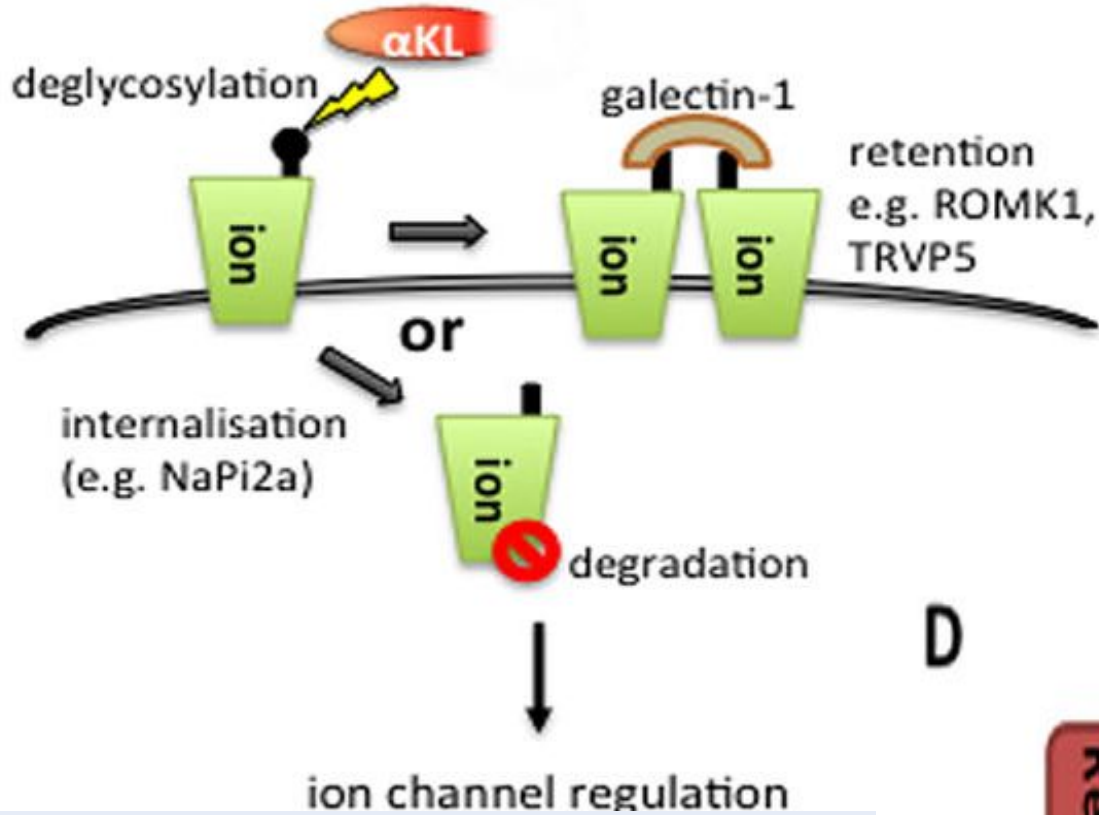
Влияние Klotho-протеина на течение патологии почек



Nephrol Dial Transplant. Jul 2012; The emerging role of Klotho in clinical nephrology
[Ming Chang Hu](#), [Makoto Kuro-o](#), [Orson W. Moe](#)



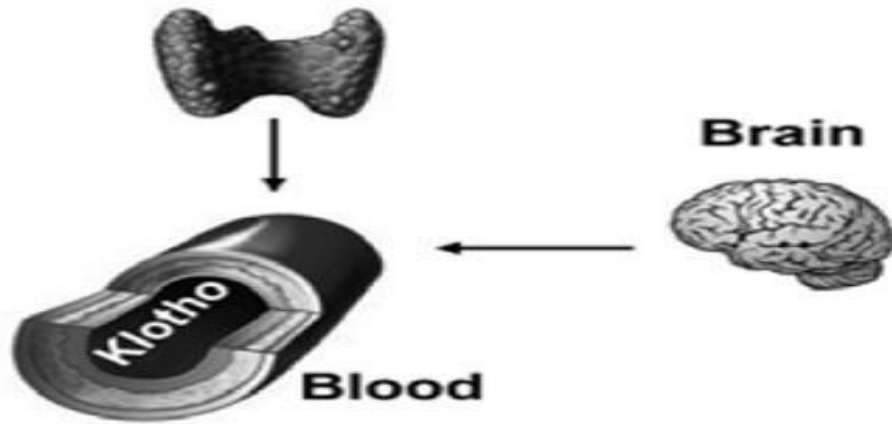
Nephrology 19 (2014); The importance of klotho in phosphate metabolism and kidney disease. SVEN-JEAN TAN, EDWARD R SMITH, TIM D HEWITSON, STEPHEN G HOLT and NIGEL D TOUSSAINT



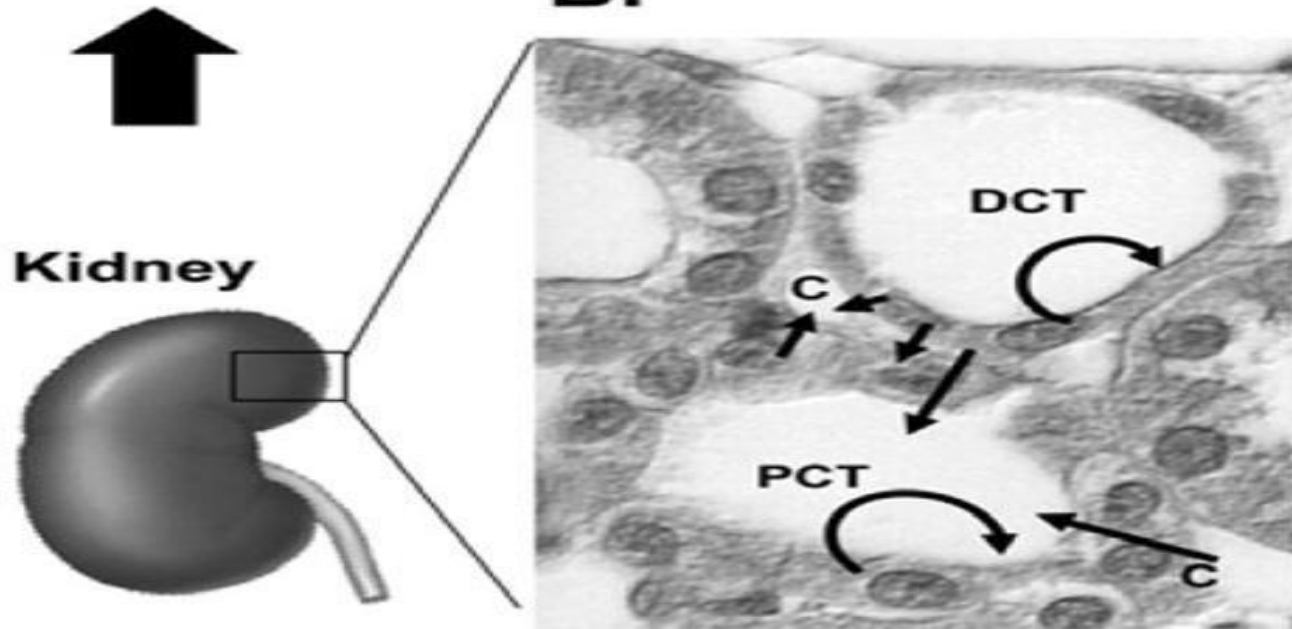
Nephrology 19 (2014); The importance of klotho in phosphate metabolism and kidney disease. SVEN-JEAN TAN, EDWARD R SMITH, TIM D HEWITSON, STEPHEN G HOLT and NIGEL D TOUSSAINT

A. Parathyroid gland

C.



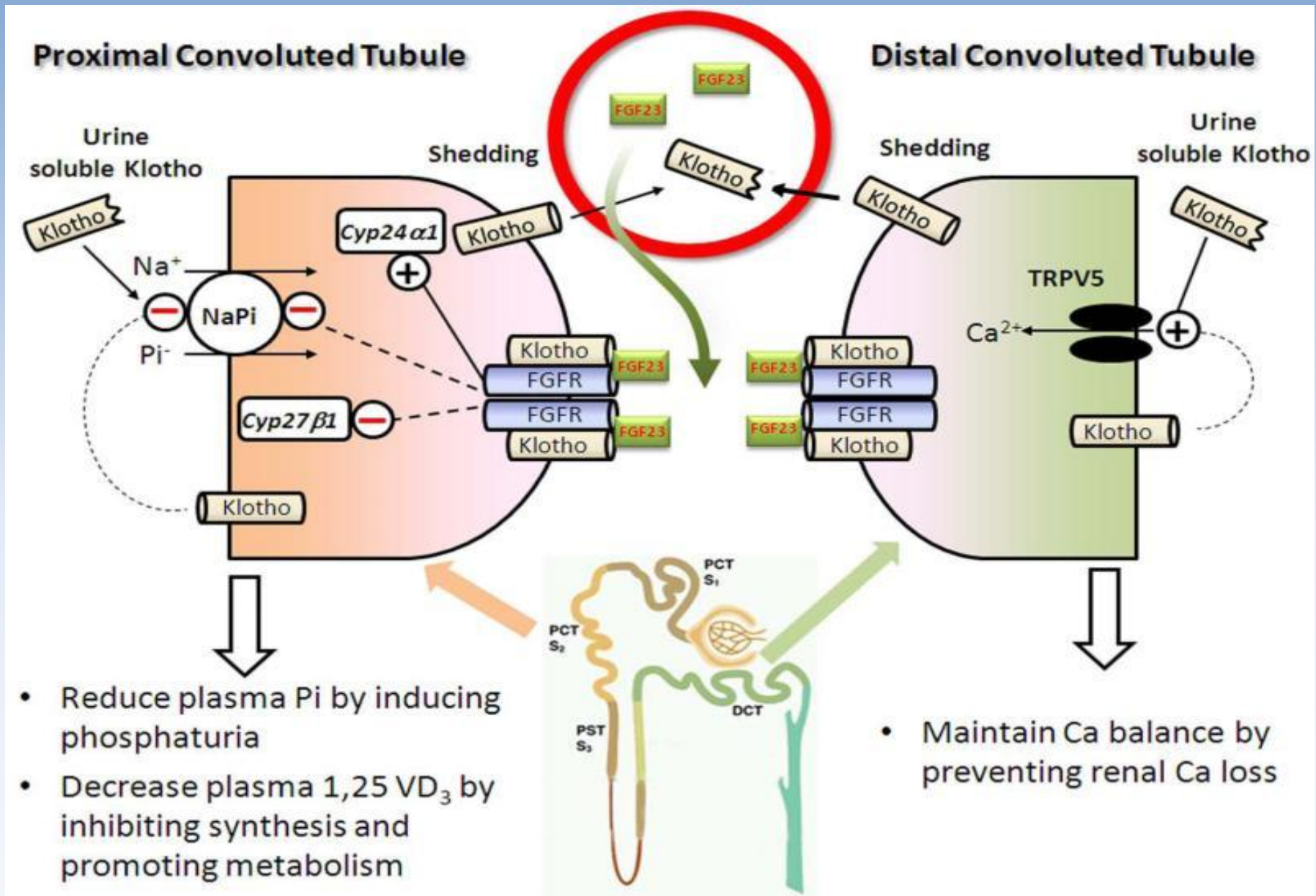
B.



[Adv Exp Med Biol. 2012;](#)

SECRETED KLOTHO AND CHRONIC KIDNEY DISEASE

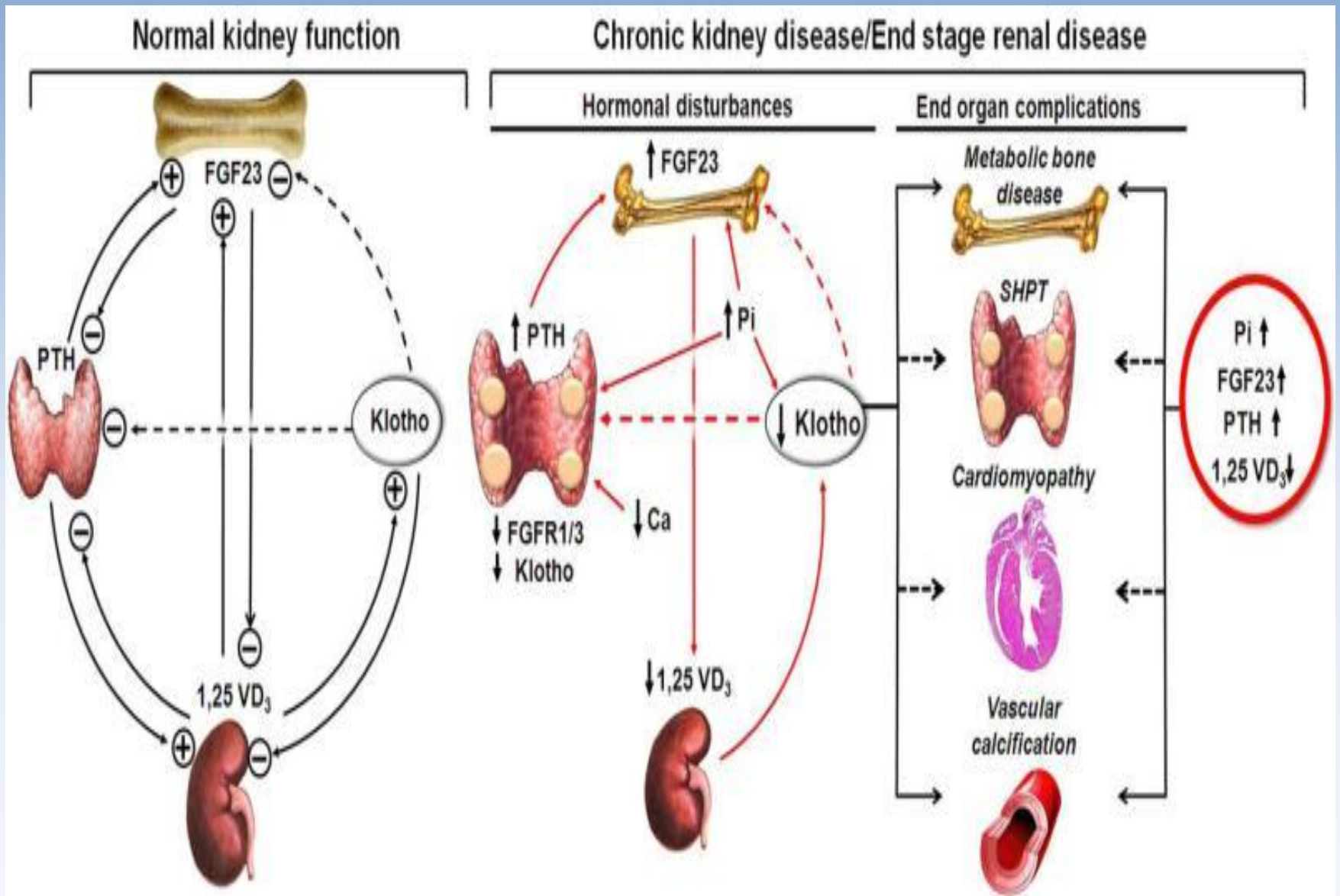
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Semin Nephrol. Mar 2013; 33(2):

RENAL AND EXTRA-RENAL ACTIONS OF KLOTHO

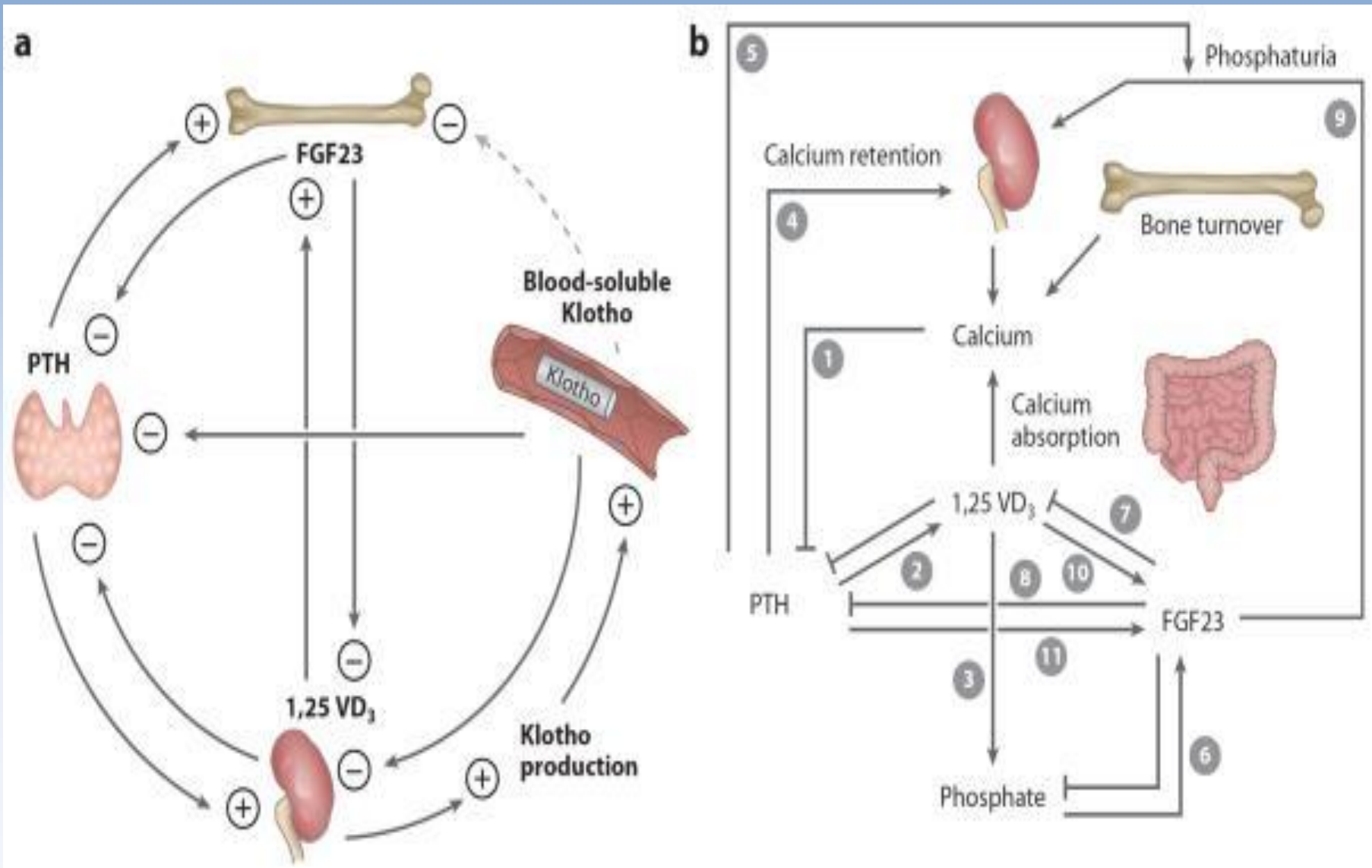
[Ming Chang Hu](#), MD, PhD, [Makoto Kuro-o](#), MD, PhD, and [Orson W. Moe](#), MD



Semin Nephrol. Mar 2013; 33(2):

RENAL AND EXTRA-RENAL ACTIONS OF KLOTHO

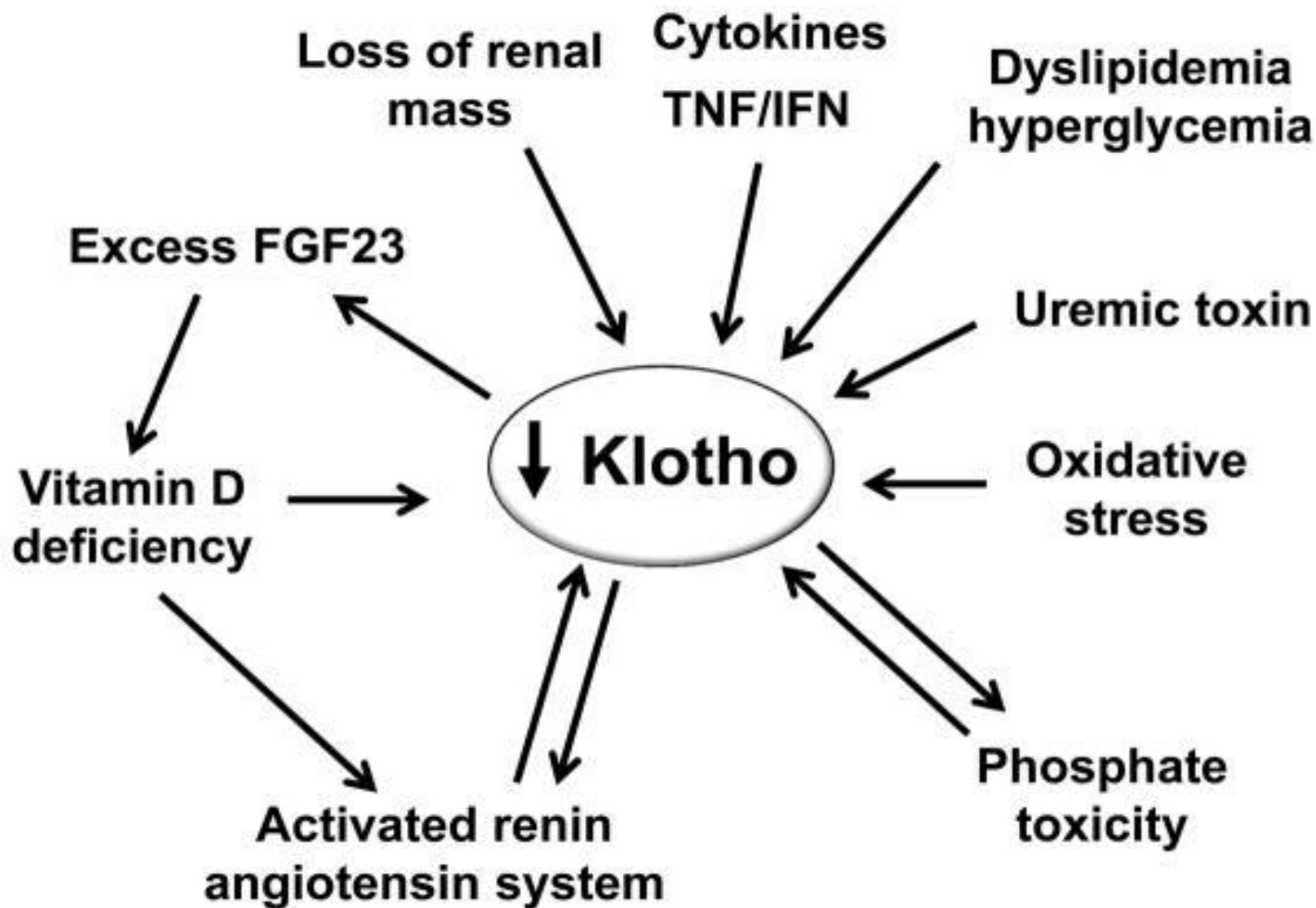
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[Annu Rev Physiol. 2013;.](#)

Fibroblast Growth Factor 23 and Klotho: Physiology and Pathophysiology of an Endocrine Network of Mineral Metabolism

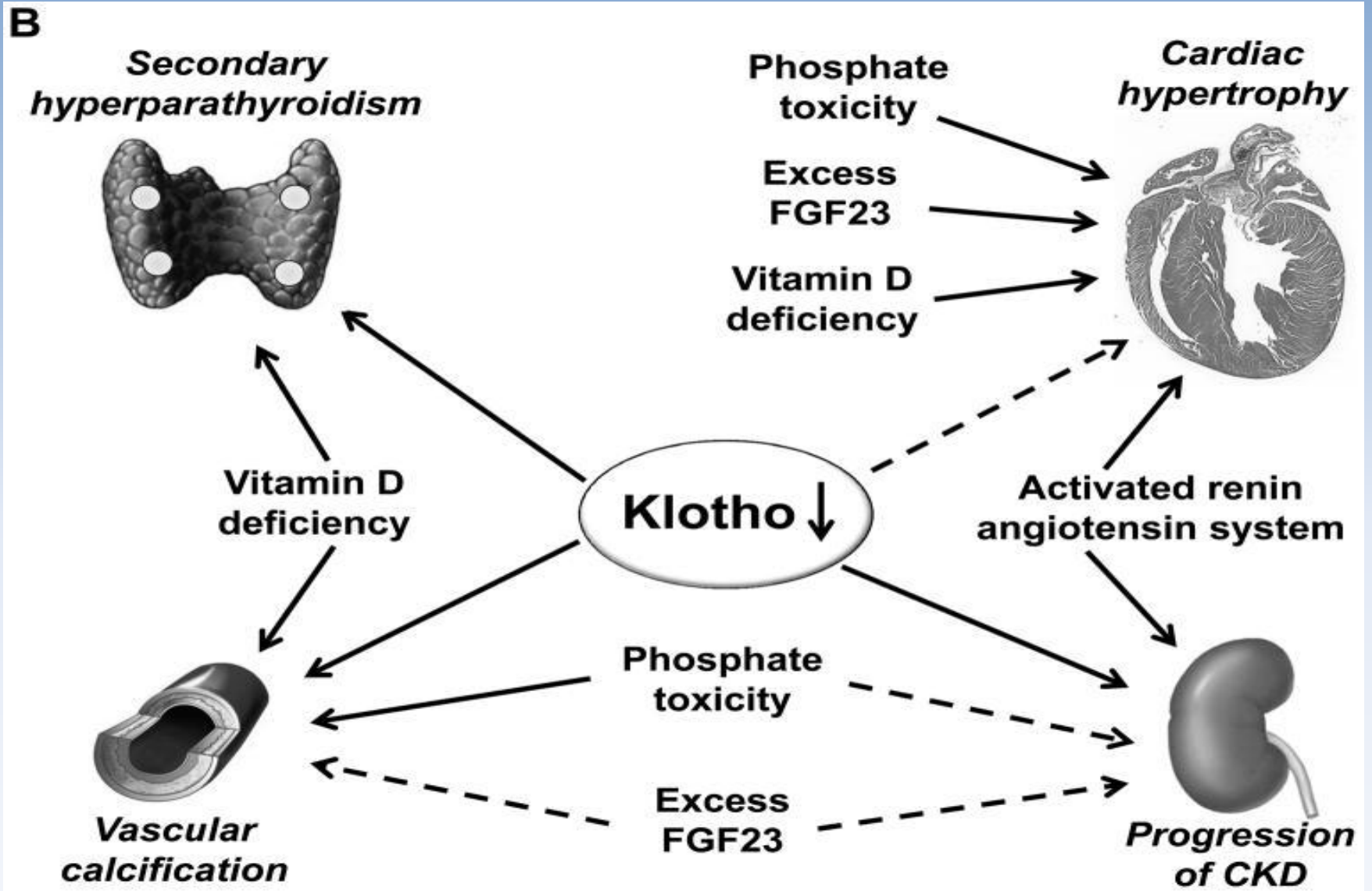
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A

[Contrib Nephrol. 2013;](#)

Klotho and Chronic Kidney Disease

[Ming Chang Hu](#), MD, PhD, [Makoto Kuro-o](#), MD, PhD,¹ and [Orson W. Moe](#), MD



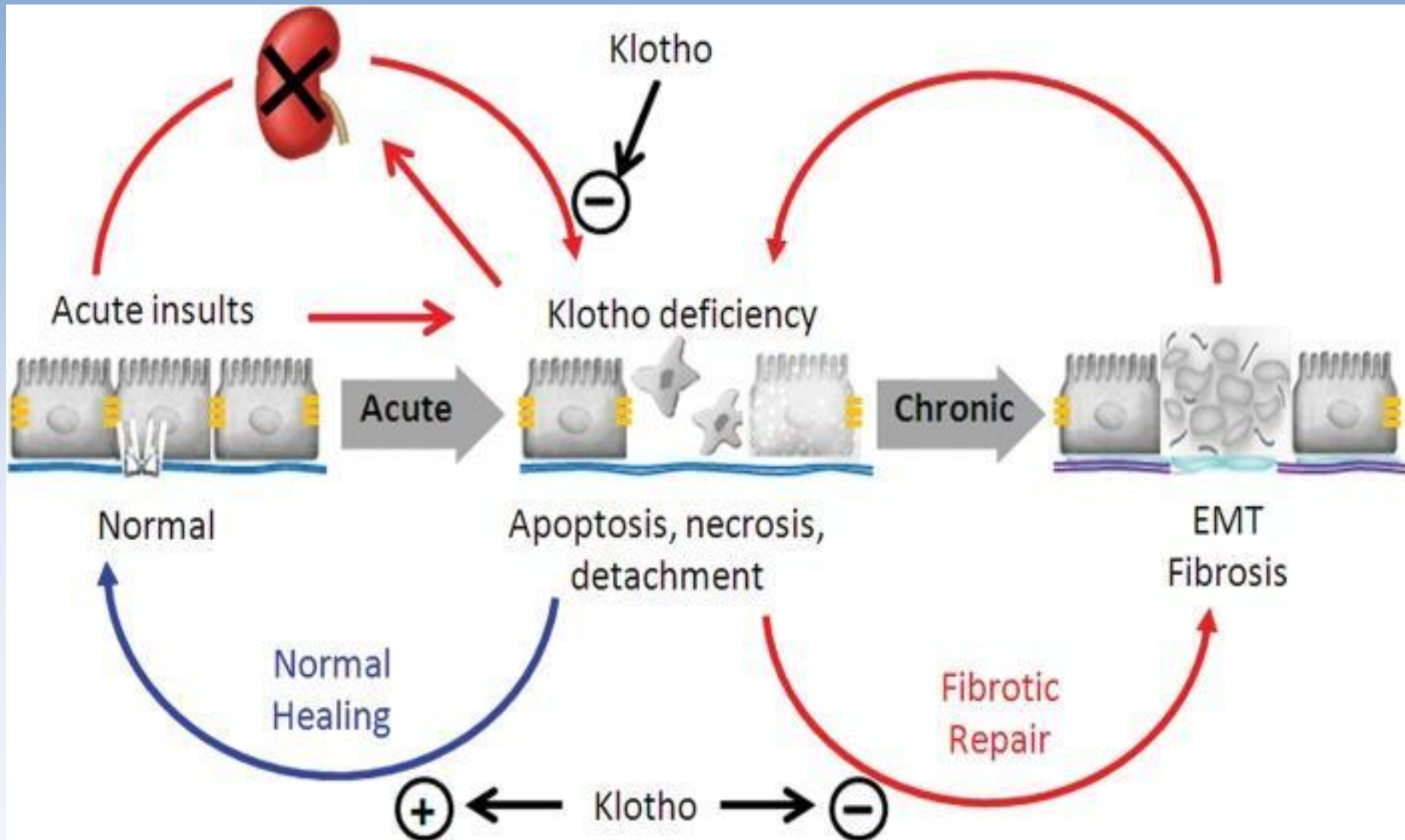
[Contrib Nephrol. 2013;](#)

Klotho and Chronic Kidney Disease

[Ming Chang Hu](#), MD, PhD, [Makoto Kuro-o](#), MD, PhD,¹ and [Orson W. Moe](#), MD

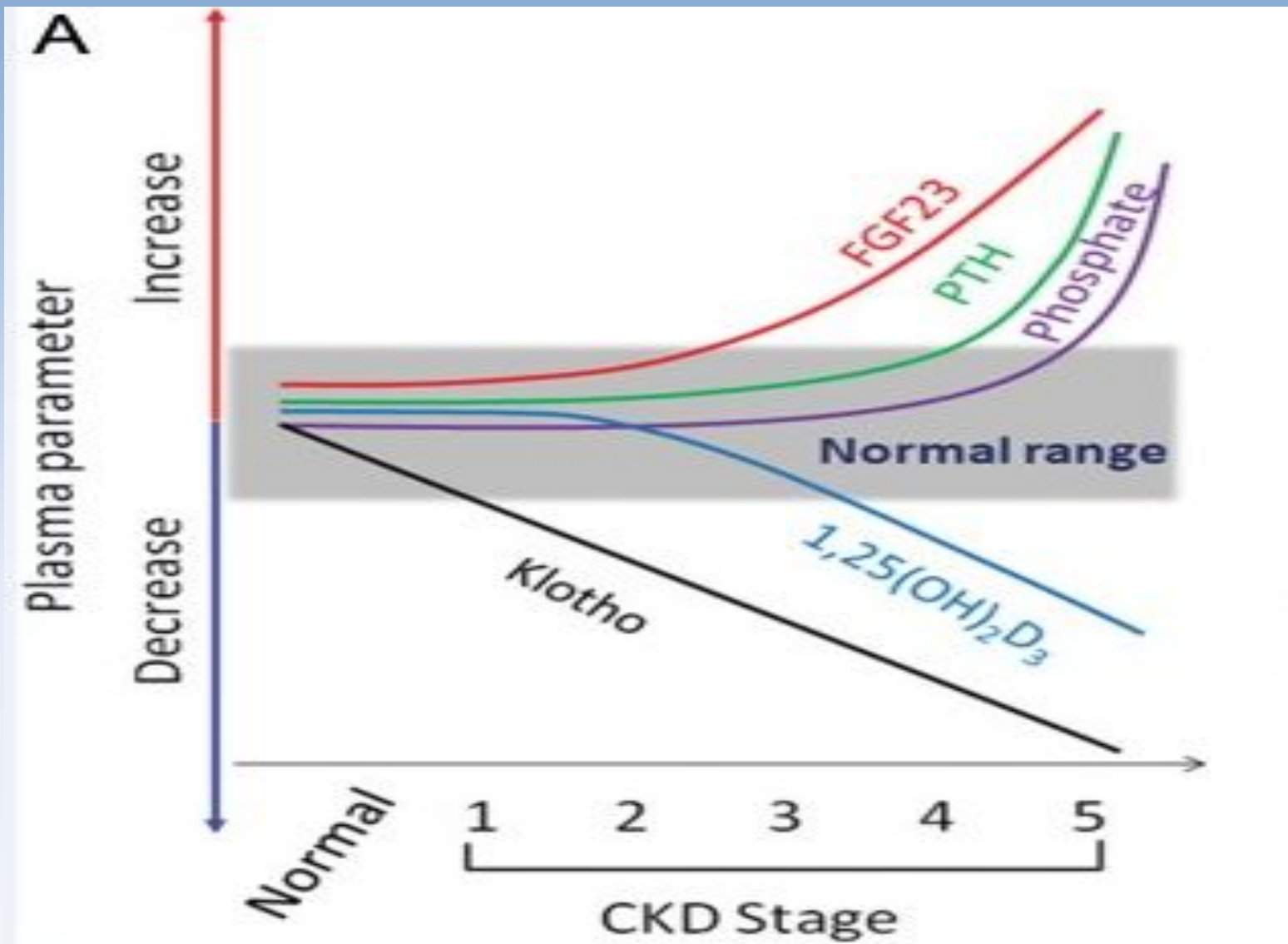
Фиброз почек

- Klotho действует как ингибитор факторов роста: TGF- β 1, Wnt, IGF-1
- TGF- β 1: супрессия MMPs, индукция TIMPs \square продукция матрикса и подавление его деградации
- Klotho подавляет Wnt-индуцированную транскрипцию цепей β -катенина \square ингибируется активность почечных миофибробластов, снижается отложение экстрацеллюлярного матрикса



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