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Session Title : Basic Research 2

Session Topic : For Kidney Disease

Date & Time, Place : June 14 (Fri) / 10:30-12:00 / Room 4 (201)

Targeting the Beta-Catenin/TCF/Foxo1 Axis for Treatment of CKD

Guoping Zheng

University of Sydney, Australia

Current therapies targeting either inflammation or fibrosis alone are ineffective in preventing chronic inflammation progressing towards fibrosis and kidney failure; anti-inflammatory therapies are profibrotic while anti-fibrosis treatment hampers resolution of the inflammation. We have identified a transcription factor complex, the β -catenin/TCF/Foxo1 axis, at the centre of crosstalk among multiple signal pathways including TGF- β crosstalking with Wnt. Targeting the β -catenin/TCF/Foxo1 axis effectively switches off profibrotic genes while switches on anti-inflammatory signals at the same time in fibro-inflammatory disease of kidney and other organs. These findings provide a novel solution in overcoming the current hurdle in treatment of chronic kidney disease.

Keywords: chronic kidney disease, TGF-beta, Wnt/beta-catenin, Inflammation, fibrosis