Endothelial-cell specific Wnt inhibition: novel therapy for renal fibrosis

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Prevalence of chronic kidney disease is increasing

CKD rank (causes of total number of global deaths)¹

- 18th most common cause of global mortality
- 27th most common cause of global mortality

Estimated prevalence of CKD globally: 10%

Undiagnosed CKD¹

- 80–90%

Leading causes of CKD¹

- Diabetes
- Hypertension

43.5% of patients with T2D also have CKD

CKD, chronic kidney disease; T2D, Type 2 diabetes

Status Quo

Systemic adverse side effects

Kidney / cell targeted therapy

Unspecific read-outs & end-points

GFR

Novel imaging techniques and biomarkers

ECM
Wnt signaling in endothelial cells is a key mechanism contributing to chronic kidney disease.
Blockade of Wnt signaling improves diabetic renal fibrosis

Reversal of renal fibrosis by 50%

Prevention of up to 75% renal fibrosis
Blockade of Wnt signaling improves non-diabetic renal fibrosis.
- Target
- Tool compound
- High-throughput assay
- Novel animal model
• Practicing pediatric nephrologist

• Published 2 high impact papers showing the effect of Wnt inhibition on atherosclerosis and renal fibrosis (*JCI Insight, Nat Comm*)

• Filed 2 provisional patents:
  • LGK974 as therapy for dyslipidemia
  • LGK974 as therapy for renal fibrosis
Seeking 100K pilot award

Propose to screen for target compounds that inhibit Wnt in endothelial cells

Flexible, coachable and open to collaboration

In search of expertise in the business and development space to help move this therapeutic idea forward