**BACKGROUND**

Focal segmental glomerulosclerosis (FSGS) is the most common primary glomerular disease leading to end-stage renal disease (ESRD) due to glomerulosclerosis in the USA, particularly in patients and their relatives. Approximately 2000 individuals reach ESRD each year. The estimated incidence for FSGS is 1.7/100,000 in European Americans and 0.7/100,000 in African Americans [1]. Susceptibility to FSGS is associated with genetic variants of the APOL1 gene (G1 and G2) [2].

- European Americans: 0.17% incidence
- African Americans: 0.72% incidence

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**RESULTS**

- **Many Lipid Related Genes are Altered in Glomeruli Affected by FSGS**
  - **Figure 1:** Microscopy analysis of the glomerular structure in patients with FSGS
  - **Figure 2:** Lipid metabolism related genes in glomeruli affected by FSGS
  - **Figure 3:** Histological analysis of glomeruli in experimental model of FSGS
  - **Figure 4:** Adiponectin (AD) administration causes a reduction in kidney injury (as evidenced by decreased albuminuria and Blood Urea Nitrogen, BUN) in mice
  - **Figure 5:** Body weight and renal function parameters in experimental model of FSGS

**CONCLUSION**

- **2-hydroxypropyl-beta-cyclodextrin protects podocytes in an experimental model of FSGS.** As cyclodextrin was FDA approved for other indications (Niemann Pick Type C disease), it could be tested as a new therapy in patients affected by FSGS.

**REFERENCES**