

Novel diagnostic and therapeutic techniques reveal changed metabolic profiles in recurrent Focal Segmental Glomerulosclerosis

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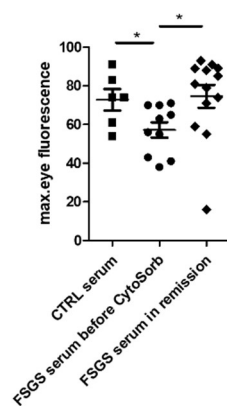
Supplementary material

Supplementary Fig. 1

Zebrafish assay for proteinuria detection after injection of FSGS serum at time of disease recurrence and at the time of remission.

Quantification of loss of fluorescent vitamin D binding proteins was done by measuring maximum GFP fluorescence in the retinal vessel plexus of Tg(1-fabp:VDBP:eGFP) zebrafish larvae at 120 hpf. Zebrafish larvae were injected with serum: buffer mixture from a healthy control and from a patient with FSGS at the time of disease recurrence and at the time of FSGS remission. * = $p < 0.05$. hpf: hours post fertilization. n = 29.

Supplementary Fig. 1



Supplementary table 1

Raman shift and Raman intensity of Raman measurement of <50 kDa serum fractions of a control person, FSGS patient at the time of disease recurrence and FSGS patient at the time of remission.

Supplementary table 2

Raman shift and Raman intensity of Raman measurement of podocytes treated with CTRL serum and FSGS serum.

Supplementary table 3

Raman shift and Raman intensity of Raman measurement of 0 biopsy and FSGS recurrence biopsy.

Supplementary table 4

Log₂ (FSGS patient / stable transplanted control) values of metabolites measured by mass spectrometry before 1. CytoSorb, after 1. CytoSorb, mean of before 1. CytoSorb and after 1. CytoSorb (mean at recurrence), before CytoSorb at remission, after CytoSorb at remission and mean of before CytoSorb at remission, and after CytoSorb at remission (mean at remission). Difference in between Log₂ (FSGS mean at remission / stable transplanted control) versus Log₂ (FSGS mean at recurrence / stable transplanted control) is given together with p-value (paired, 2-sided).

Supplementary table 5

Values of metabolites (in μM) measured by mass spectrometry in our FSGS patient at time of disease recurrence (two different measurements) and in 10 healthy subjects of the EPIC-study. P-value states if difference in FSGS patient at time of disease recurrence versus healthy controls was significant.