

Chondroitin sulfate degradation and eicosanoid metabolism pathways are impaired in focal segmental glomerulosclerosis: Experimental confirmation of an *in silico* prediction

Shiva Kalantari¹, Mohammad Naji², Mohsen Nafar^{2*}, Hootan Yazdani-Kachooei³, Nasrin Borumandnia², Mahmoud Parvin⁴

¹Chronic Kidney Disease Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

²Urology-Nephrology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

³Department of Biology, Faculty of Basic Sciences, Islamic Azad University, Science and Research Branch, Tehran, Iran

⁴Department of Pathology, Shahid Labbafinejad Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran

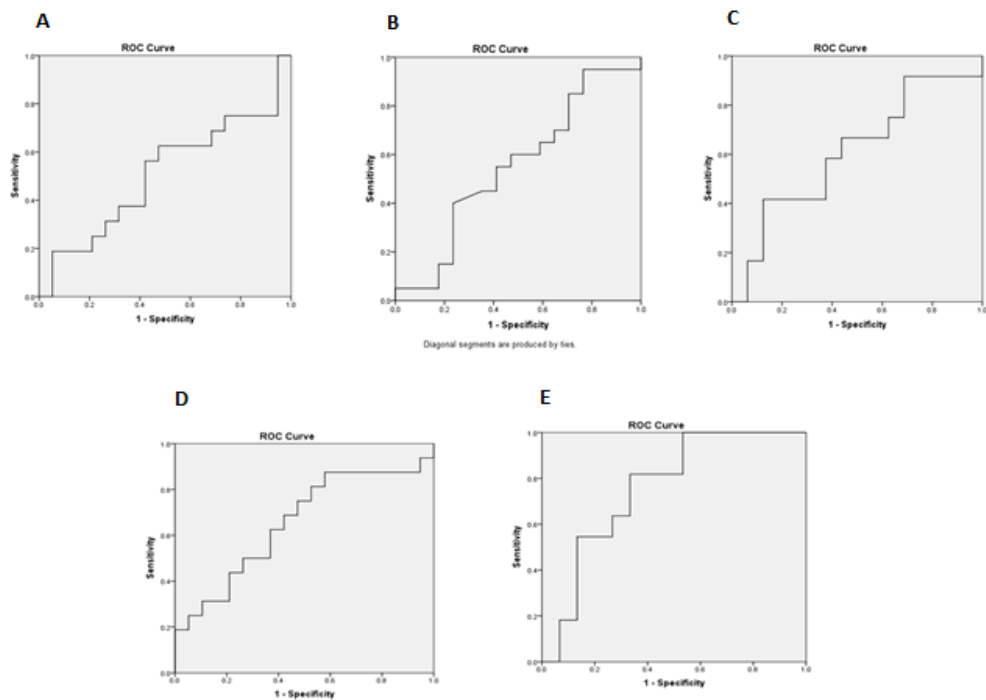


Figure S1. The ROC analysis of target genes for the diagnosis of FSGS patients from healthy individuals. A) Arylsulfatase, B) Hexosaminidase, C) COX-2, D) Arylsulfatase and

hexosaminidase, E) combination of all target genes (Arylsulfatase and hexosaminidase and COX-2).

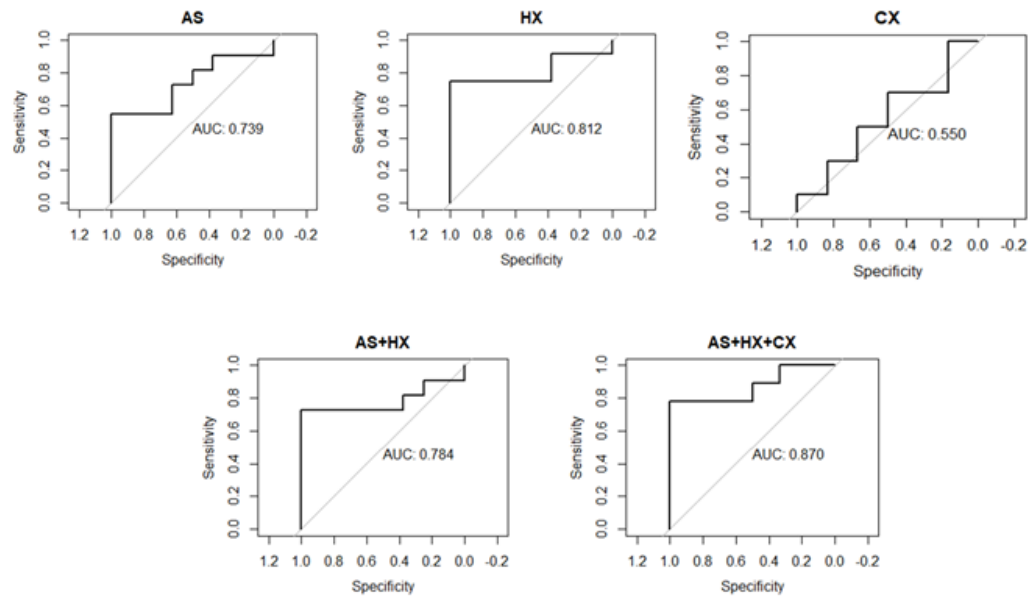


Figure S2. The ROC analysis of target genes for discrimination of FSGS patients with nephrotic and sub-nephrotic proteinuria.

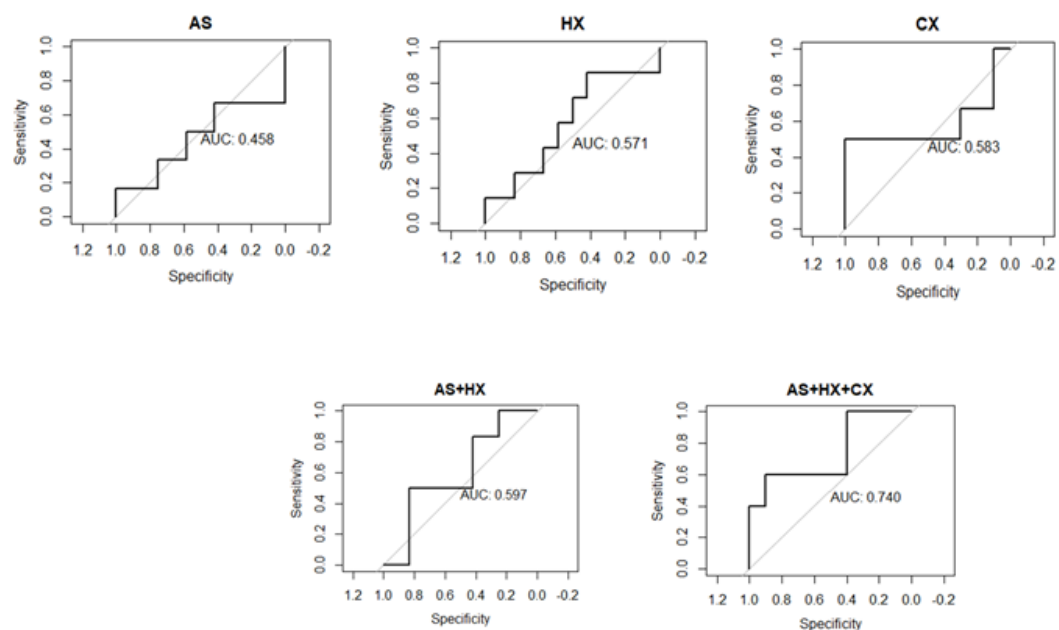


Figure S3. The ROC analysis of target genes for discrimination of FSGS patients with eGFR < 60 and > 60 mL/min/1.73 m².

Table S1. The primer sequences for amplification of cDNA of the housekeeping and target genes

Arylsulfatase (AS)	Forward	CCGCCGAGGATTTGATACC
	Reverse	ACATCGTGTGACATTCAGAGC
Hexosaminidase (HX)	Forward	GCTGAGGGCACATTCTTTATC
	Reverse	GGCAGGTAATGGCGAGATG
cyclooxygenase-2 (COX-2)	Forward	CCAGCACTTCACGCATCAG
	Reverse	GCCAGAGTTTCACCGTAAATATG
Prostaglandin I2 Synthase	Forward	CCAGGCACTCACAGAAGC
	Reverse	TCCGTAAAGAGTCAGGTAGC
GAPDH	Forward	GCTTCGCTCTCTGCTCCTC
	Reverse	CGACCAAATCCGTTGACTCC