Researchers develop and test risk score for childhood kidney condition
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Researchers from a global pSSNS consortium first conducted a GWAS of pSSNS and discovered 12 regions of the genome that harbored increased risk for this disease. Eight of these regions were novel. The same researchers then created a PRS using the genetic data from this GWAS and assigned each child their own PRS. Among children with pSSNS, those with a higher PRS tended to develop the condition at an earlier age.

"We are excited to have been part of a global collaboration that both discovered new GWAS loci for pSSNS and created a PRS. We look forward to following up on our discovery in multiple ways," said corresponding author China Nagano, MD, Ph.D., a post-doctoral research fellow in the laboratory of Matt Sampson, MD, MSCE at Boston Children's Hospital and a Pediatric Nephrologist at Kobe University Graduate School of Medicine (in Japan).

"From a clinical perspective, we can test whether higher PRS lowers the threshold of a healthy child to develop pSSNS in the context of an environmental trigger. From a mechanistic perspective, we can test if the PRS is correlated with molecular profiles from a child's blood, urine, and/or kidney tissue. Collectively, these insights could lead to a more precise understanding of the pathobiology of pediatric steroid sensitive nephrotic syndrome."

More information: Abstract: A multi-population polygenic risk score for pediatric steroid sensitive nephrotic syndrome is correlated with disease age of onset

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