

## Autoimmune Podocytopathy - More Than Just Minimal Change

A. Weins<sup>1</sup>

<sup>1</sup> Dept. of Pathology, Brigham and Women's Hospital, Boston, MA, USA.

### **Abstract**

This presentation will discuss the recent discovery of anti-nephrin antibodies as a cause of diffuse podocytopathies and so-called "idiopathic" nephrotic syndrome in adults and children. I will first summarize the clinical, histologic and ultrastructural features of diffuse podocyte injury and the pathophysiological consequences of such alterations to the kidney filter. Next, I will review the history of the decades-long quest to identify the elusive permeability factor, and how close attention to renal biopsy findings led to the discovery of an autoantibody directly targeting a key component of the kidney filter. I will share our initial findings published in 2022, followed by various studies by us and others expanding and validating these findings in other patient populations, culminating with the recent manuscript published in the New England Journal of Medicine including an elegant immunization mouse model as proof of causality. The presentation will conclude with an outlook on the future of diagnostic work up of podocytopathies and immediate implications for patient therapy.