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Session Title : Glomerulonephritis 2

Session Topic : Perspective on the Pathophysiology of Glomerular Diseases

Date & Time, Place : June 15 (Sat) / 08:30-10:00 / Room 1 (GBR 101 - 102)

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## **New antigens in membranous nephropathy**

**Sanjeev Sethi**

*Mayo Clinic, United States*

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Membranous nephropathy (MN) is a pattern of injury caused by autoantibodies binding to specific target antigens with accumulation of immune complexes along the subepithelial region of glomerular basement membranes. The last 20 years have witnessed revolutionary advances in the understanding of MN, particularly by the discovery of novel target antigens and their respective autoantibodies. These include PLA2R, THSD7A, EXT1 and EXT2, NELL1, SEMA3B, NCAM1, CNTN1, HTRA1, FAT1, PCDH7, NTNG1, PCSK6 and NDNF, accounting for 80-90% of MN antigens. These discoveries have challenged the traditional classification of MN into primary and secondary forms. At least 14 target antigens have been identified, accounting for 80-90% of MN. Many of the forms of MN associated with these novel MN target antigens have distinctive clinical and pathologic phenotypes. The lecture will cover the discoveries of the novel antigens, and discuss the specific clinicopathologic findings associated with the novel antigens.

**Keywords:** Membranous nephropathy, antigens, proteomics