Vascular Potassium Channel Dysfunction during Diabetes

Potassium channels are key determinants of vascular smooth muscle excitability and vasoreactivity. Using a high fat diet mouse model of type 2 diabetes, we have found selective impairment of vascular KV2.1 and BK-β1 expression and function that contributes to enhanced arterial tone. We described a mechanism for transcriptional suppression of these subunits that depends on the A-kinase anchoring protein 150 (AKAP150), targeting of the phosphatase calcineurin, and activation of the transcription factor NFATc3. The translational relevance of these modifications was examined in vascular smooth muscle from diabetic patients.

Thursday April 21, 2016
11:00 AM-12:00 PM
MR5 1005

Hosted by: Dr. Swapnil Sonkusare
Refreshments Served