Video Transcript: Early Career Oral Award Winner Livia Camargo, MSc, PhD  
Published: September 10, 2022

**Livia Camargo, MSc, PhD** - Hi, my name is Livia Camargo. I'm a research associate at the Research Institute at McGill University Health Center and I'm working on vascular smooth muscle cells and their role in vascular dysfunction associated with hypertension. And we are focusing on the reactive oxygen species that are involved in these changes that we observed in hypertension.

So we identify that vascular smooth muscle cells in human hypertension, they change their phenotype. So they go from a contractile to a more synthetic and proinflammatory phenotype. And we identified the nox5, one of the enzymes that produces these reactive oxygen species is involved in this process. We then performed the proteomic analysis to try to understand the molecular mechanisms involved.

And we found that these reactive oxygen species that are increased in hypertension are oxidizing some of the proteins in the vascular smooth muscle cells, especially the proteins in the extracellular matrix and the cell surface. And we think that this can be related to these alterations that we are seeing in the cells. So this is really interesting as we are trying to identify these targets and getting to know how these reactive oxygen species are acting in the cells so we can target them and better treat hypertension.