Neena Kalia

Dr. Kalia is an experimental researcher heading the Microcirculation Research Group and serving as the Director of a cutting edge intravital imaging facility within the Department of Cardiovascular Sciences. Her research focuses on the often overlooked but critically important coronary microcirculation, particularly its response to myocardial infarction and the exacerbating effects of ageing and diabetes. Her group utilises advanced imaging techniques such as real-time intravital and laser speckle microscopy to investigate microvascular dysfunction in the beating heart *in vivo*, including imaging even at the level of the coronary capillaries. Her team have pioneered the integration of these imaging approaches with experimental models of myocardial IR injury, revealing novel cellular and molecular drivers of microvascular dysfunction. Recent discoveries from her lab highlight the role of new members of the IL-1 superfamily, specifically the IL-36/IL-36R signalling pathway, as a key mediator of thromboinflammatory responses in the injured heart. Her group is also exploring strategies to repurpose cardiovascular drugs, including $P2Y_{12}$ receptor inhibitors, to protect the coronary microcirculation. She will be presenting on “Targeting the Microcirculation in Cardiac Disease.”