

Prof. Dr. Marie-José Goumans



Professor Marie-José Goumans is a distinguished professor of Cardiovascular Cell Biology at Leiden University Medical Center (LUMC). She has made pioneering contributions to understanding the role of signaling pathways, particularly TGF β and BMPs, in cardiovascular development, function, and disease.

Her research explores the complex mechanisms behind heart development, regeneration, and cardiovascular disorders, with a special focus on endothelial cell behavior and progenitor cell function. Her lab investigates how disruptions in BMP and TGF β signaling contribute to diseases such as Pulmonary Arterial Hypertension (PAH), as well as their function in heart regeneration.

Professor Goumans earned her PhD in 1999 at the Hubrecht Laboratory, where she studied TGF β signaling during early mouse development. Following her doctoral work, she pursued postdoctoral research at the Netherlands Cancer Institute and the Ludwig Institute for Cancer Research in Uppsala, Sweden. During this time, she made pivotal discoveries about how endothelial cells interpret and respond to alterations in TGF β signaling. In 2003, she was appointed assistant professor at Utrecht University Medical Center, where she began pioneering studies on cardiac progenitor cells and their potential for heart repair.

Since her appointment at LUMC in 2012, Professor Goumans seeks to unravel the intricate details of TGF- β /BMP signaling, not only as a key guide for heart development and regeneration but also as a critical marker for the onset and progression of cardiovascular diseases. In her talk, "The Devil in the Details of BMP10: How It Signals, Shapes the Heart and Marks Cardiovascular Health and Disease," she will delve into the fundamental pathways that influence heart function and pathology, offering a deeper understanding of how BMP10 serves both as a key regulator and a diagnostic marker in cardiovascular health.