

October 12, 16:00- 18:00 Opening Ceremony & Plenary Lecture

Hypertension: Past Progress, Present Challenges and Future Promises.

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Hypertension has been long recognized as a major health challenge. Hypertension research and management have made important progress with considerable success in reducing cardiovascular morbidity and mortality. This progress is the result of basic and translational research in developing animal models, the fundamental understanding of physiology and biochemistry of blood pressure regulation, and the development of therapeutics. More recently, advances in genetics, genomics, molecular pathways, and emerging technology show much promise.

However, there remains substantial challenges. Hypertension is controlled in less than a fifth of patients worldwide. There are vast global disparities in hypertension awareness, treatment, and control, especially problematic in low- and middle-income countries. Challenges include early detection and follow-up that is dependent on cuff-based measurement and drug regimens, which are often not precise, and have side effects. In spite of recent scientific progress and numerous clinical research trials, recent research has not yielded major advances in hypertension control.

Transformation is urgently needed to reduce the global burden of hypertension. The future will depend on effective development of digital technologies, insights from data science and artificial intelligence for detection and management, new techniques such as genome editing which provide potential cures, and the importance of population science for global control.