

Bina Joe, PhD, FAHA, FAPS

"Microbes and metabolites: what is the pressure?"

Dr. Bina Joe is an executive leader, Distinguished University Professor and Chair of the Department of Physiology and Pharmacology and the founding Director of the Center for Hypertension and Precision Medicine at the University of Toledo, College of Medicine and Life Sciences. She is a Fellow of the American Heart Association (AHA), a senior professional silver heart member, a Fellow of the American Physiological Society (APS) and has served on the leadership committee of the Council on Hypertension of the AHA. Dr. Joe is also a longstanding member of the Editorial Board of Hypertension and Editor-in-Chief of the APS Journal, Physiological Genomics.

Journey as a Scientist and Educator:

She hails from India, where she earned a doctoral degree in Biochemistry from the University of Mysore. After a brief postdoctoral fellowship at the Indian Institute of Science in Bangalore, India, she moved to the Pharmaceutical Industry working for AstraZeneca India and subsequently immigrated to the United States as an International Fogarty Scholar to conduct Molecular Genetics research on Arthritis at the National Institutes of Health, Bethesda, MD. Her research work in Hypertension began in 2001 as a faculty member at the University of Toledo College of Medicine and Life Sciences. For the past two decades, she has been instrumental in leading Hypertension Research, which is now recognized as a Spotlight Research Area of Unique Distinction in the University of Toledo. The Joe lab has published over 130 peer-reviewed articles, many documenting pioneering discoveries and 6 book chapters. Her laboratory was the first to use CRISPR-Cas9 gene editing to positionally clone non-coding variants causing hypertension. Other major discoveries from her laboratory include the identification of the link between the host and microbiota in blood pressure regulation and the ketone body betahydroxybutyrate as an antihypertensive metabolite. She is a well-respected international thought leader in medical research who has been continually funded with >\$20 million by the US Government. She is the first Asian-American recipient of several research awards in hypertension research including the prestigious International Harriet Dustan Award for women in science from the American Heart Association, the Young Scholar Award from the American Society of Hypertension and the Lewis K. Dahl Memorial Lecture Award from the American Heart Association Council on Hypertension. She has delivered invited lectures in UK, Greece, China, Australia, Cuba, Canada and at several prestigious congresses as a keynote speaker in the U.S. Dr. Joe has mentored several research assistant professors, postdoctoral fellows and graduate students, many of whom have won various accolades in their careers.

Journey as an Executive:

Dr. Joe is a member of the executive cabinet of the Dean of the University of Toledo College of Medicine and Life Sciences. Internationally, she continues to serve on multiple NIH and other international review panels, is the Scientific Organizer of several international conferences in USA and UK and is currently engaged in various executive leadership activities to promote research locally, nationally and internationally. She has taken on multiple leadership positions within the American Physiological Society and the American Heart Association.