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Editorial for the 2008 Paul M. Vanhoutte Distinguished Lectureship Award

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During this year's Experimental Biology meeting in San Diego, California, the Division for Cardiovascular Pharmacology of ASPET presented the inaugural **Paul M. Vanhoutte Distinguished Lectureship Award** to Dr. Donald D. Heistad of the University of Iowa. The Lectureship is a biennial award bestowed by the ASPET Division for Cardiovascular Pharmacology, and honors a living legend of vascular biology, Dr. Paul M. Vanhoutte. It pays tribute not only to his many contributions to our knowledge of endothelial and vascular biology but to his skill as mentor to over 100 trainees, which has led to the rise of an entire generation of vascular physiologists and pharmacologists.

Dr. Vanhoutte's career has spanned three decades and an equal number of continents and ranged from academic research to the scientific leadership of drug discovery in the pharmaceutical industry. His major scientific contributions have helped us appreciate the important role endothelial cells play in controlling the underlying vascular smooth muscle. His work has highlighted the complexity of this regulation and clarified its function in both health and disease. Dr. Vanhoutte has authored over 1,000 research papers and reviews. While keeping up this impressive research activity, he somehow found the time to chair the International Union of Basic and Clinical Pharmacology (IUPHAR) Committee for Receptor Nomenclature, before serving as Secretary General and then President of the Union. He also served the *Journal of Cardiovascular Pharmacology* with distinction as its Editor-in-Chief for nearly twenty years and continues now as Editor of Supplements.

The recipient for the inaugural 2008 Paul M. Vanhoutte Distinguished Lectureship award is Dr. Donald D. Heistad from the University of Iowa who delivered a lecture entitled, "Endothelial Function in the Time of the Giants" (1). Dr. Heistad has published over 380 research papers, reviews and book chapters on the regulation of the cerebral circulation, the vascular impact of atherosclerosis and the application of gene transfer in the study of vascular pathophysiology. Since joining the faculty at the University of Iowa in 1970, Dr. Heistad has been productively engaged in research relevant to mechanisms of endothelial dysfunction and issues related to the endothelial-dependent regulation of vascular tone. Building on the work of Dr. Vanhoutte and others, Dr. Heistad and his collaborators have studied dysfunction of endothelium during vascular diseases ranging from atherosclerosis to hypertension. His pioneering description of "sick vessel syndrome" highlighted the pathological remodeling that occurs during vascular disease. More importantly his studies of vasomotor consequences of atherosclerosis and regression in primates addressed the possibilities that these sick vessels might be restored, if not to "health" at least to a more normal function that may avert or reduce

the negative consequences of the disease. His studies have demonstrated the importance of an imbalance between nitric oxide and superoxide in atherosclerotic vessels that helped define a mechanism that contributes to vascular dysfunction. More recently, Dr. Heistad and his colleagues have described a novel mouse model of aortic valvular stenosis which promises to further studies of the aortic valve endothelium.

Dr. Heistad is widely recognized as an international leader in the study of cerebral circulation and he has helped elucidate the role of the endothelium in the cerebral vasculature contributing significantly to our understanding of the vascular impact of occlusive and hemorrhagic stroke. He recently developed the first model of spontaneous intracranial hemorrhage (ICH) in hypertensive mice and was among the first to apply the technique of gene transfer to the study of vascular pathophysiology.

For all his remarkable scientific achievements and outstanding mentoring of young scientists, Dr. Heistad personifies the type of individual for whom the Paul M. Vanhoutte Distinguished Lectureship Award was created. Bestowing it on him, recognizes his unique contributions which have provided so much and continue to lead the field.

References

1. Heistad DD. Endothelial Function in the Time of the Giants. *J Cardiovasc Pharm* 2008;52:xxx-xyy.