The Journal of Pharmacology and Experimental Therapeutics

Protein Kinase C Downregulation Enhanced Ca^{2+}_e-Induced Relaxation of Isolated Mesenteric Arteries from Aged Dahl Salt-Sensitive Rats

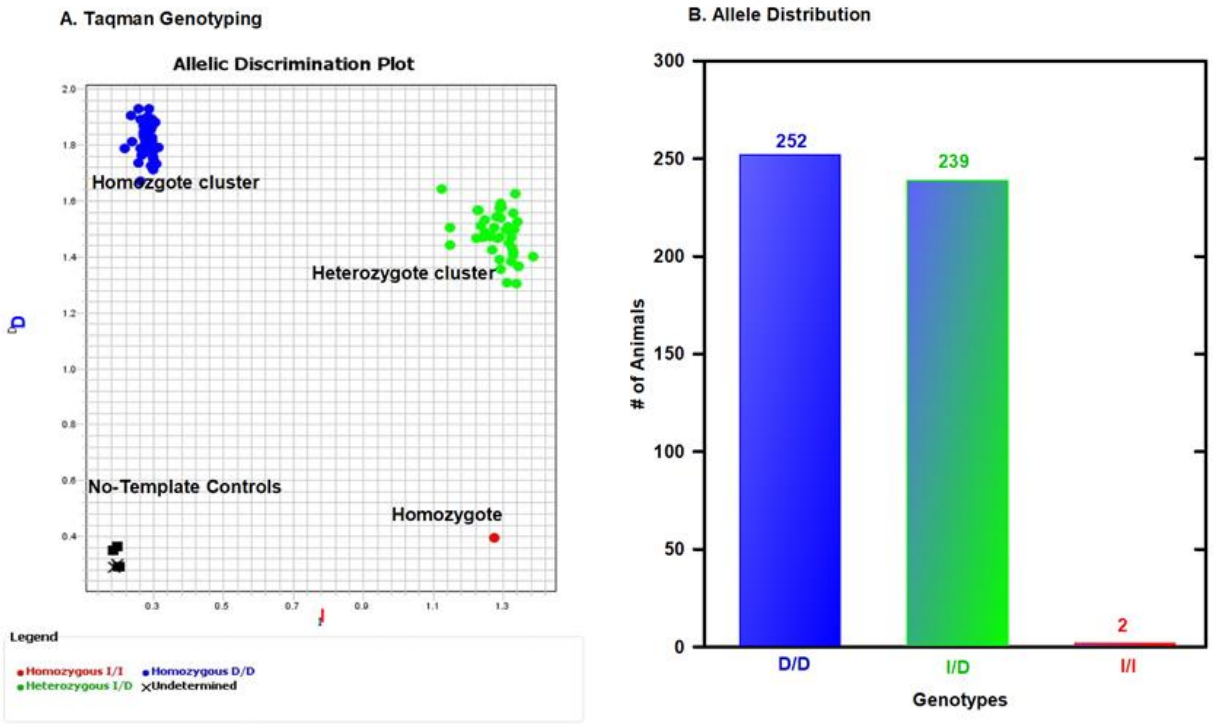
Samuel O. Odutola, Lakeesha E. Bridges, and Emmanuel M. Awumey

Julius L. Chambers Biomedical/Biotechnology Research Institute (S.O.O, L.E.B, E.M.A);

Department of Biological and Biomedical Sciences (E.M.A), North Carolina Central University, Durham, NC 27707.

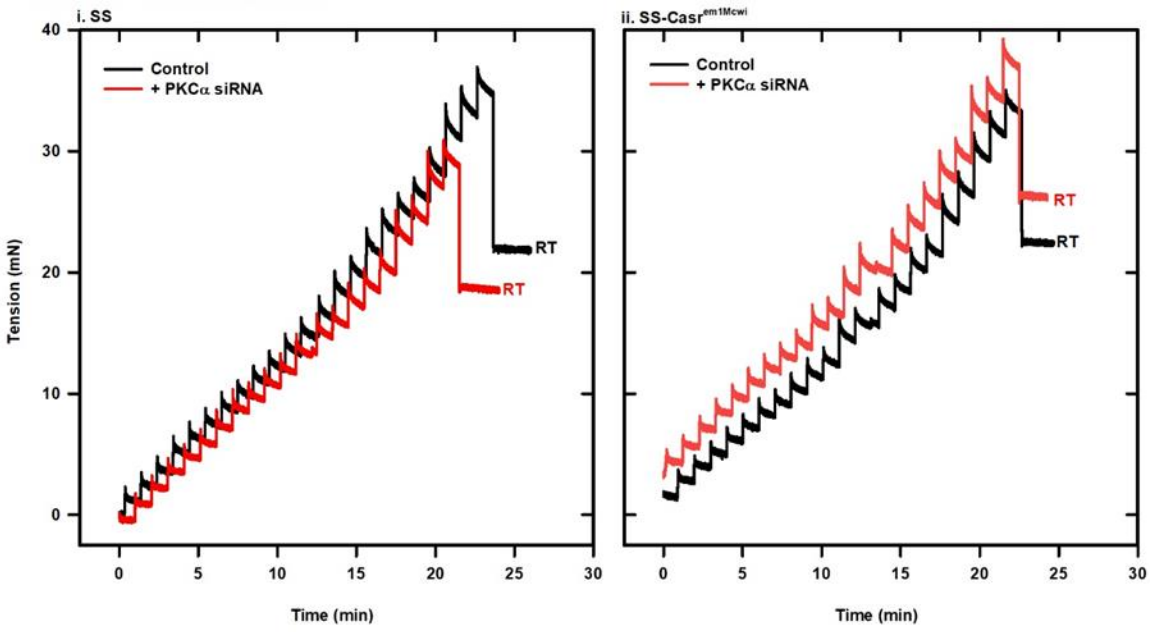
Department of Physiology and Pharmacology (E.M.A),

Hypertension and Vascular Research Center (E.M.A), Wake Forest University School of Medicine, Winston-Salem, NC 25157.



Supplemental Figure 1

Genotyping of SS-Casr^{em1Mcwi} rats. A. A representative SNP Genotyping Assay of tail DNA samples from 493 rats**. A.** Allelic discrimination plot for offspring obtained from breeding experiments. DNA was extracted from tail samples from animals with the DNeasy® Kit (Valencia, CA) and analyzed by a Custom Taqman® SNP Genotyping Assay. **D/D** = Homozygous dominant (Wild Type), **I/D** = Heterozygous, I/I = Homozygous recessive. **B.** Bar chart showing the allelic distribution in animals obtained from breeding of heterozygous male and female SS-Casr^{em1Mcwi} rats to establish a colony containing wild type and mutant rats for the studies.



Supplemental Figure 2

Effects of CaSR and PKCα Downregulation on Normalized and Phenylephrine Tensions in Mounted Mesenteric Arteries from SS and SS-Casr^{em1Mcwi} rats.

Normalization of untreated and PKCα siRNA-treated vessels from SS (i) and SS-Casr^{em1Mcwi} (ii) rats. Segments (2 mm) of isolated mesenteric arteries were mounted in a wire myograph chamber in PSS medium (containing 1 mM Ca^{2+} and 100 µM ascorbic acid), equilibrated at 37°C and gassed with a mixture of 95% air and 5% CO_2. Vessel segments were normalized by step-wise increases in passive force until a resting tension (RT) was achieved.