**The regulation of interactions between calmodulin and the important vasomodulator enzimes eNOS and MLCK via sphingolipid mediators**

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During the first period of the program, we achieved our first three aims:

1) We have shown that 10 and 50 uM concentrations of sphingosine inhibits the endothelium-dependent vasodilation in a competitive fashion, whithout effect on the NO-donor Na+-nitroprusside responses. In thoracic aorta segments we determined the dose response curves and EC50 values.

2) We investigated the effect of 30 nmol/g (i.a.) sphingosine on the arterial mean pressure and heart rate in anesthetized mice. An initial transient hypertension was followed by a slow decrease in both parameters, the mechanism of which needs further experime nts.

3) We characterized the calmodulin-MLCK interaction and its inhibition by sphingosine in vitro.

4) We presented our results at the iCC/SLC conference (May 06-10, Cesme, Turkey).