

LIST OF SCIENTIFIC PAPERS

This thesis is based on the following scientific papers.

1. Iwashita, S., Tanida, M., Zeng, Q. and Suzuki, M. High-fat diet-induced blood pressure elevation in rats related to metabolic, hormonal and neural abnormalities. *Obesity Research*: (submitted)
2. Iwashita, S., Tanida, M., Ootsuka, Y., Terui, N., Shu, M., Kang, D. and Suzuki, M. Elevation of renal sympathetic activity and blood pressure in rats on high-fat diet. *Hypertension*: (plan to submit)
3. Tanida, M., Iwashita, S., Ootsuka, Y., Terui, N., and Suzuki, M. Leptin injection into white adipose tissue elevates renal sympathetic nerve activity dose-dependently through the afferent nerves pathway in rats. *Neuroscience Letters*: 293, 107-110, 2000
4. Iwashita, S., Yanagi, K., Ohshima, N. and Suzuki, M. Insulin increases blood flow rate in the microvasculature of cremaster muscle of the anesthetized rats. *International Journal of In Vivo Research*: (in press)

LIST OF ABBREVIATIONS

ANOVA:	analysis of variance
BF:	blood flow
BP:	blood pressure
BSA:	bovine serum albumin
CHO:	high-carbohydrate diet
CNS:	central nervous system
Epi:	epinephrine
FAT:	high-fat diet
GIR:	glucose infusion rate
HR:	heart rate
HUVEC:	human umbilical vein endothelial cell
IR:	insulin receptor
MAP:	mean arterial pressure
Na:	sodium
NE:	<i>norepinephrine</i>
NIDDM:	non-insulin-dependent diabetes mellitus
NO:	nitric oxide
NOS:	nitric oxide synthase
PI 3:	phosphatidylinositol 3
SHR:	spontaneously hypertensive rat
SNA:	sympathetic nervous activity
SNP:	sodium nitroprusside
SNS:	sympathetic nervous system
SSPG:	steady-state plasma glucose
SSPI:	steady-state plasma insulin
WAT:	white adipose tissue
WKY:	Wister-Kyoto