

Anti-aging based on a novel system maintaining homeostasis in the body

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Adrenomedullin (AM), originally identified as a vasodilating peptide, is now recognized to be a pleiotropic molecule possessing various bioactivities. We have reported that knockout mice deficient in AM or RAMP2, an AM-receptor accessory protein, show embryonically lethal, and proved that RAMP2 is the critical determinant of the vascular functions of AM. However, not only in the vascular system, AM and RAMP2 are highly expressed in adipose tissue. To clarify the pathophysiological roles of AM-RAMP2 system in adult, we performed conditional gene targeting of RAMP2. Using gene-targeted mice, we found that AM-RAMP2 system plays critical roles of maintaining homeostasis in adult. AM-RAMP2 system can thus be a novel therapeutic target of anti-aging.