Manipulation of RECK (Reversion-inducing Cystein-rich proteins with Kazal motifs) in Human Vascular Smooth Muscle Cells and Human Vascular Endothelial Cells

E.P.S.Chandana, Yoko Yoshida, and Makoto Noda

Department of Molecular Oncology, Kyoto University Graduate School of Medicine, Sakyo-ku Yoshida Konoe Kyoto Japan

Abstract. Previous studies have indicated the importance of the membrane-anchored MMP regulator RECK in several events during mouse development, including maintenance of tissue integrity, angiogenesis, myogenesis, and chondrogenesis. It has been shown that Vascular Smooth Muscle Cells (VSMC) and Vascular Endothelial Cells (VEC) express RECK. Recently siRNA technology is widely used to study the function of genes especially *in vitro*. Using siRNA technique, we have manipulated the RECK expression in Human Vascular Smooth Muscle Cells (HVSMC) and Human Vascular Endothelial Cells (HUVEC). Our findings indicate HVSMC changed its morphology in the absence of RECK and showed the altered integrin expression in the absence of RECK. HUVEC proliferated profusely and its vessel formation ability *in vitro* was also altered in the absence of RECK. These findings indicates that RECK might play a key role in functioning of HUVEC and HVSMC.

Key Words: RECK, Human Vascular Smooth Muscle Cells, Human Vascular Endothelial Cells