

Partner 1
Professor Per Hellstrand

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Tabular CV

Year	Achievements
1965-1967	BSc. Stockholm University (mathematics, physics, philosophy)
1667-1968	Master of Science (Physics) Stanford University, CA, USA
1969-1975	M.D., Lund University, Sweden
1974-1979	Ph.D. (Physiology), Lund University
1980	Postdoctoral fellow with Professor Richard J. Paul, University of Cincinnati, OH, USA
1981-1985	Assistant professor (Physiology), Lund University
1985-1993	Associate Professor (Physiology), Lund University
1993-present	Professor (Muscle research), Lund University
1990-1993	Chairman, Department of Physiology and Biophysics, University of Lund
1986-2001	Chairman, Department of Physiological Sciences, Lund University
2006-present	Head, Division of Vascular and Airway Research, Department of Experimental Medical Science, Lund University

5 Selected Representative Publications

- Albinsson S, Nordström I, **Hellstrand P.** (2004). Stretch of the vascular wall induces smooth muscle differentiation by promoting actin polymerization. *J. Biol. Chem.* 279:34849-55.
- Bergdahl A, Gomez MF, Wihlborg AK, Erlinge D, Eyjolfson A, Xu SZ, Beech DJ, Dreja K, **Hellstrand P.** (2005). Plasticity of TRPC expression in arterial smooth muscle: correlation with store-operated Ca²⁺ entry. *Am J Physiol Cell Physiol.* 288, C872-80.
- Kumar B, Dreja K, Shah SS, Cheong A, Xu SZ, Sukumar P, Naylor J, Forte A, Cipollaro M, McHugh D, Kingston PA, Heagerty AM, Munsch CM, Bergdahl A, Hultgårdh- Nilsson A, Gomez MF, Porter KE, **Hellstrand P,** Beech DJ. (2006). Upregulated TRPC1 channel in vascular injury *in vivo* and its role in human neointimal hyperplasia. *Circ. Res.* 98:557-63.
- Albinsson S, Shakirova Y, Rippe A, Baumgarten M, Rosengren BI, Rippe C, Hallmann R, **Hellstrand P,** Rippe B, Swärd K. (2007). Arterial remodelling and plasma volume expansion in caveolin-1-deficient mice. *Am. J. Physiol.* 293:R1222-31.
- Albinsson S, Nordström I, Swärd K, Hellstrand P. (2008). Differential dependence of stretch and shear stress signaling on caveolin-1 in the vascular wall. *Am J Physiol Cell Physiol.* 294:C271-9.

Project Description/ Role in ITN

Per Hellstrand is coordinator of the SmArt ITN and thus has a crucial role in coordinating research and training activities within the network. Current research interests comprise the role of mechanical forces and ion channel activity in the control of vascular smooth muscle phenotype and vessel remodelling, as well as the effects of cholesterol-lowering food components on vascular function and atherosclerosis development. Within SmArt, Per Hellstrand will lead WP 5 (*Effects of pressure, flow and smooth muscle tone on smooth muscle differentiation and growth: role of actin polymerization and membrane microdomains*) and participate also in WP 3 (*Pressure-and shear stress-induced microvascular remodelling mechanisms: role of ROS*), WP 4 (*Roles of laminin isoforms in mechanotransduction in endothelium and smooth muscle*) and WP 7 (*Role of vascular cell ion channels for vascular tone and remodelling*).