

Molecular Biotechnology Programme

Uppsala University School of Engineering

UPTEC X 06 037	Date of issue 2006-11
Author	
Irmeli Barkefors	
Title (English) Effect of shear stress on macromolecule uptake in porcine aortic endothelial cells <i>in vitro</i>	
Title (Swedish)	
Abstract	
An <i>in vitro</i> model for studies of the shear stress response of endothelial cells was developed. Using this model, the effect of shear stess on endocytosis of potentially harmful molecules such as lectins and low density lipoproteins were studied using confocal microscopy. The effect of heparane sulfate proteoglycan on this transport was also investigated.	
Keywords	
Endothelial cells, HSPG, shear stress, glycocalyx, endocytosis.	
Supervisors Ulrika Egertsdotter, Associate Profes Virginia institute of technolgy	ssor Professor Cyrus Aidun Georgia institute of technology
Scientific reviewer	
Johan Kreuger Uppsala University	
Project name	Sponsors
Language English	Security
ISSN 1401-2138	Classification
Supplementary bibliographical information	Pages 32
80	ical Center Husargatan 3 Uppsala (0)18 4710000 Fax +46 (0)18 555217