

Contents

Chapter 1	General introduction	9
Chapter 2	Microbubbles and ultrasound: from diagnosis to therapy <i>Eur J Echocardiography 2004;5(4):245-256</i>	13
Chapter 3	Transient permeabilization of cell membranes by ultrasound- exposed microbubbles is related to formation of hydrogen peroxide... <i>Am J Physiol – Heart Circ Physiol 2006;291(4):H1595-1601</i>	33
Chapter 4	Low-intensity ultrasound-exposed microbubbles provoke local hyper- polarization of the cell membrane via activation of BK _{Ca} channels <i>Ultrasound Med Biol 2008;34(3):502-508</i>	49
Chapter 5	Ultrasound and microbubble-induced cellular and intercellular Permeability changes in primary endothelial cells <i>Ultrasound Med Biol. Submitted</i>	63
Chapter 6	Ultrasound and microbubble targeted delivery of macromolecules is regulated by induction of endocytosis and pore formation <i>Circ Res. In press</i>	81
Chapter 7	General discussion, summary and future perspectives <i>Published in adapted form in Neth Heart J 2009;17:83-87</i>	105
Chapter 8	Nederlandse samenvatting	123
	List of publications	129
	Dankwoord	133
	Curriculum vitae	139

