CONTENTS

Chapter 1.	General Introduction	9
Chapter 2.	Dynamic shear stress in parallel-plate flow chambers	19
1	Nitric oxide production by bone cells is fluid shear stress rate dependent	37
1	An initial stress-kick is required for the fluid shear stress-induced rate dependent activation of bone cells	59
1	Stochastic resonance enhances the rapid response of bone cells to fluid shear stress	83
-	Bone cell responses to high-frequency vibration stress: does the nucleus oscillate within the cytoplasm?	105
Chapter 7.	Microrheology of mechanosensitive bone cells	127
Chapter 8.	Microgravity and bone cell mechanosensitivity	155
Chapter 9.	General Discussion	179
General Su	mmary	195
Algemene	Samenvatting	
A Word of	Gratitude	

Curriculum Vitae