

## List of Figures

Figure No.	Title	Page
1	Targets of supplement use (percentage of 2009 retail value) (NHS, 2011)	1
2	Market share (in £ million) of supplement in 2009 (NHS, 2011)	2
3	Cartilage breakdown (Novartis osteocerein brochure, n.d.)	6
4	Inflammatory cascade in synovial joint (Novartis osteocerein brochure, n.d.)	7
5	Diacerein as a pro-drug of rhein (Nicolas et al., 1998)	18
6	Molecular pathogenesis of osteoarthritis (NYU med osteoarthritis, n.d.)	24
7	Pre-membrane effect of rhein (Novartis osteocerein brochure, n.d.)	26
8	Post-membrane effect of rhein (Novartis osteocerein brochure, n.d.)	27
9	Anti-catabolic effect of rhein (Novartis osteocerein brochure, n.d.)	28
10	Pro-anabolic effects of diacerein (Novartis osteocerein brochure, n.d.)	30
11	Linearity of six calibration curves (values expressed as mean $\pm$ STD)	55
12	Sample chromatogram of sample plasma	57
13	Chromatogram of subject 6 at time point 0.75 hr	60
14	Chromatogram of subject 1 at time point 0.75 hr	62
15	Comparison of subjects C <sub>max</sub> prior to glucosamine administration and post glucosamine administration. (n=6)	73
16	Comparison of subjects AUC 0-t prior to glucosamine administration and post glucosamine administration. (n=6)	73