CHAPTER 4

Nanoscaffolds for Drug Delivery

L. Nikkola, H. Jukola and N. Ashammakhi*

Summary

anotechnology opens up new avenues in biomaterials science as well as manufacturing more delicate implantable devices. Most of the nano size devices developed in the fields of biomedical applications have been nano particles. Recently, nanoscaffolds made of variety of biomaterials have been developed. Such scaffolds can be combined with different active agents to obtain the advantages of the local drug release. When compared to conventional systemic administration method, local drug release seems to have several advantages, for example the avoidance of harmful side effects and lower drug consumption. Nanoscaffolds with drug release properties bring about a new potential for development of even more sophisticated implantable devices. The current review introduces recent work done in the development of nanoscaffolds with drug releasing properties.

KEYWORDS: Nanoscaffolds, drug delivery, nanotechnology

*Correspondence to: N. Ashammakhi, Institute of Biomaterials, Tampere University of Technology, Tampere, Finland. E-mail: nureddin.ashammakhi@tut.fi

Topics in Multifunctional Biomaterials and Devices, Ed. N Ashammakhi © 2008.