

The Use of Gelatin in Biomedical Engineering: Halal Perspective

Authors : Syazwani Ramli, Norhidayu Muhamad Zain

Abstract : Nowadays, the use of gelatin as biomaterials in tissue engineering are evolving especially in skin graft and wound dressing applications. Towards year 2018, Malaysia is in the way of planning to get the halal certification for biomedical device in order to cater the needs of Muslims and non-Muslims in Malaysia. However, the use of gelatins in tissue engineering are mostly derived from non-halal sources. Currently, gelatin production mostly comes from mammalian gelatin sources. Moreover, within these past years, just a few studies of the uses of gelatin in tissue engineering from halal perspective has been studied. Thus, this paper aims to give overview of the use of gelatin from different sources from halal perspectives. This review also discussing the current status of halal for the emerging biomedical devices. In addition, the different sources of gelatin used in tissue engineering are being identified and provides better alternatives for halal gelatin. Cold- water fish skin gelatin could be an effective alternative to substitute the mammalian sources. Therefore, this review is important because the information about the halal biomedical devices will delighted Muslim consumers and give better insight of halal gelatin in tissue engineering application.

Keywords : biomedical device, gelatin, halal, skin graft, tissue engineering

Conference Title : ICHR 2018 : International Conference on Halal Research

Conference Location : Bangkok, Thailand

Conference Dates : December 13-14, 2018