

Skin repair regeneration and integration – the role of bio mimetics?

Skin is our interface with the world performing a complex array of functionality which hinges on the capacity of the skin to retain its integrity as a surface barrier. The surface is dynamic the surface being replaced continually. However in situations of trauma, the capacity for the skin to regenerate is overwhelmed and in some cases progresses to skin failure.

The capacity to repair can be influenced by the introduction of frameworks across the wound which facilitate cell proliferation, migration and differentiation into a skin construct. Presenting biomaterials with a range of architectural characteristics can influence the balance between scar repair and skin regeneration. The capacity to guide tissue regeneration is key is restoring full function of the skin envelope.

The role of bio mimetics of in situ tissue guided regeneration will be explored with discussion of the progress in burn injury skin repair demonstrating the translation into clinical practise.