

9th Annual Conference on

STEM CELL AND REGENERATIVE MEDICINE

September 25-26, 2017 Berlin, Germany



Roohi S Ahmad

Universiti Putra Malaysia, Malaysia

RGTA based Matrix therapy for wound healing and tissue regeneration in Hand Surgery

ReGeneraTing Agents (RGTA) are a family of polymers bioengineered to stabilise heparin-binding growth factors by mimicking Heparan Sulphate (HS) thereby protecting them and promoting tissue repair and regeneration. In inflammation, destruction of HS exposes the ExtraCellularMatrix – ECM (structural & cellular proteins within) to the actions of proteases and glycanases which break them down and also act on cytokines and growth factors to prevent adequate repair. In injured tissue, RGTA would replace destroyed HS by binding to the structural proteins and reconstruct the ECM scaffold. Growth factors will also bind to RGTA and resume position and organization resembling that of non-injured tissue. Hence RGTA showed they induce a regeneration process by restoring the proper cellular micro-environment. More recently a RGTA named CACIPLIQ20 was adapted to skin lesions and has shown efficacy in various trials of non-healing leg ulcers. We extrapolated this action to human tissue (of poor vascularity) and applied the same RGTA with meticulous wound care techniques on 15 patients with wounds of varying sizes and depths in the upper limb. We observed that the wounds healed or granulation tissue grew again where there was dead skin and no visible underlying blood supply which in usual circumstances would have resulted in loss of limb length, dry gangrene or at best healing by severe scarring. Exposed tendons were also covered with granulation tissue, and resulted in a fair range of motion. Full thickness palmar and dorsal wounds also healed beautifully reproducing a flexible movable dorsal surface not seen in granulating, scarred healing.

Biography

Roohi completed her basic medical and Master's degrees in Orthopaedic Surgery from National University of Malaysia and is presently holding a tenured post in Universiti Putra Malaysia. She has more than 2 decades of surgical experience and practising rights in four countries. She has published more than 40 papers in reputed journals and is presently working on stem cell applications in bones and soft tissues.

roohihandsurgery@gmail.com

Notes: