

1073-92-251

Rebecca A Segal* (rasegal@vcu.edu). *Modeling the Effects of Systemic Mediators on Wound Healing.*

Wound healing is a concern across many branches of medicine. During many medical procedures, from a planned surgery to an emergency treatment, the wound healing process is triggered. When the native biological processes are incapable of healing the wound, treatment options are limited. In order to improve patients' outcomes, there is a need to develop better methods of identifying wounds that are at risk of becoming chronic and to identify more effective treatment options for these wounds. It has been shown that altering the levels of systemic hormones such as estrogen and cortisol impact healing outcomes. This ODE model is used to identify and test new treatment methodologies for healing dermal wounds in the presence of these systemic mediators. (Received August 02, 2011)