Researchers at the University of South Florida have derived protease resistant growth factor formulations for chronic wound healing.

Growth factor therapy is the application of growth factors to enhance wound healing. Growth factors are substances synthesized by the body to stimulate the growth and proliferation of cells that are involved in wound healing and inflammation.

Over the years, growth factor therapy has been proved as a promising treatment for chronic wounds. Numerous growth factors have been tested and have shown a positive effect on wound healing. However, the stability of these therapeutic drugs and growth factors in chronic wound treatment is a significant challenge, and due to high protease level in chronic wounds, repeated administration is required.

Our inventors have derived a novel formulation that fuses elastase resistant peptide PMP-D2 variant to a bioactive protein, a fusion that retains the biological activities of the moieties and will preserve the bioactivity of different growth factors and functional peptide in chronic wounds.

This invention has the potential to increase the efficiency of growth factor therapy by retaining their bioactivity in the chronic wound area. It will also reduce the dosage that is needed for the treatment having impact on multiple regeneration processes.