



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Burn Injury Treatment

Treating Combat Wounds with a Biologically Active Advanced Antimicrobial Human Skin Substitute

With funding from USAMRMC and Military Infectious Diseases Research Program MIDRP, Stratatech Corporation has developed a human skin substitute for use in burn and trauma patients. The human skin substitute also performed as an autograft in preclinical effectiveness and safety testing. FDA awarded Stratatech's human skin substitute orphan drug status in 2012. Microbial infections, however, still remain a concern in burn and trauma patients. With MIDRP funding, Stratatech is developing a genetically enhanced human skin substitute that has sustained expression of cathelicidin—a naturally occurring, human-produced defense peptide with broad-spectrum antimicrobial properties that demonstrates effectiveness against multidrug-resistant bacteria and fungi. Initial preclinical studies have demonstrated effective antibacterial activity against multidrug-resistant *Acinetobacter baumannii*, one of the most common pathogens associated with combat wounds. This product could help prevent microbial infections in burn and trauma patients requiring skin grafts. More preclinical efficacy and toxicity studies are underway in preparation for an IND submission proposed for the fourth quarter of FY15.