CELL: Division of Cellulose and Renewable Materials

325 - Monitoring human neutrophil elastase (HNE) in chronic wound

View Session Detail

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Abstract:
Chronic wounds are a significant problem for health care system, accounting for almost 4% of its total budget, and currently increasing. Chronic wounds fluids have elevated concentration of human neutrophil elastase (HNE), hence this enzyme can be used as inflammation/infection marker. Our goal is to develop functional materials for fast diagnosis of wound inflammation/infection using HNE as a specific marker. For that, chromogenic peptide sensors with specific HNE cleavage sequences were incorporated into various common used dressings. Major and promising results were obtained and will be shown in this communication. The development of this medical device for wound control will have a great impact on patient’s life quality.