

Joint Biomedical Engineering Seminar Series
MU ▪ MCW ▪ UWM

Seminar Announcement

Friday, February 2, 2018

Noon – 1:00 pm

EMS E237

UW- Milwaukee

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Abstract

LIGHT-BASED TECHNOLOGIES IN WOUND CARE

Wound healing is a complex and dynamic biologic process that involves inflammation, tissue formation and tissue remodeling. Wounds that do not heal properly become chronic and are associated with a perpetual inflammatory state and oxidative stress. Current treatment strategies for wound management involve debridement, topical antibiotics, the application of topical dressings, and oftentimes surgery. This approach typically leads to a lengthy period of invasive, painful, expensive, and frequently ineffective efforts. Photobiomodulation (PBM) using far-red (FR) near-infrared (NIR) light is a non-invasive, painless, and inexpensive therapeutic modality. FR/NIR photons are absorbed by the mitochondrial photo-acceptor molecule, cytochrome c oxidase, triggering improved mitochondrial bioenergetics and activating intracellular signaling pathways that decrease oxidative stress, chronic inflammation and promote healing. The development, application, and acceptance of a non-invasive and effective therapeutic approach for wound healing would have an immense impact on health care and health care delivery.

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UWM EMS E250 is located at 3200 N Cramer St, Milwaukee, WI.

Refreshments will be served.