The benefits of magnetic/protein targeted drug delivery in treating skin cancer in-vivo

Heath E. Misak, Farhana Abedin, Michelle Man, and Jennifer Herring
Faculty: Ramazan Asmatulu, Shang-You Yang
Department of Mechanical Engineering, Wichita State University

Skin cancer represents the most common type of cancers, and is life threatening without treatment. People with light skin, genetic diseases and high exposure to ultraviolet radiation (UVR) are at a high risk of developing skin cancer. Skin cancer once developed may spread to the rest of the body including organs inside the body. Once the cancer advances and metastasizes, it is difficult to control and treat. We report on a Magnetic Carrier System that is capable of localizing the chemotherapy at the afflicted area. In-vivo experiments have shown that utilizing the Magnetic Carrier System developed at Wichita State University (WSU), the efficacy of the chemotherapy can be enhanced at least twofold.