Injury is the leading cause of death for all Americans under the age of 55. Advances in the field of injury biomechanics have resulted in improved automobile designs, occupant restraints, helmet designs, and personal protective devices that have prevented the injuries and saved countless lives.

As head of the computational research group at the Center for Applied Biomechanics, Dr. Panzer’s group focuses on using computational mechanics to model and predict the biomechanics of injury following an impact. This includes the development of nonlinear finite element models to simulate high-rate events such as sport impact, automotive crashes, and military blasts. Through this research, new safety equipment and injury mitigation technologies can be designed and developed for all types of loading and people.

“Saving lives and preventing injury using computational injury biomechanics...”