

# Dinner Presentation

**Speaker:** **Dr. Kurt E. Beschorner**  
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**Title:** **From Research to Design: Footwear and Ladder Design for Preventing Falling Accidents**

**Short summary:** Falling accidents are among the leading causes of occupational injuries. Between 2002 and 2015, the number of injurious falls to working aged adults has increased by 29%. Design solutions that can be integrated into the workplace are urgently needed to reverse these trends. Our research group has utilized rigorous methods in biomechanics and tribology (the study of friction) to understand the causes of falling accidents. Importantly, this research has also focused on modifiable risk factors and on solutions that can be translated to the workplace. These efforts have led to recommendations for assessing tread on work shoes, determining when worn shoes should be replaced, and assessing the design of ladders for safety. It is expected that these solutions will reduce falling accidents in order to improve worker safety and reduce employer costs.