Safety is an integral part of research activities. Safe research practice is important because it prevents injuries and fatalities, property damage, and environmental damage, as well as associated cleanup costs and regulatory fines. A culture of safety also improves research productivity. Safety is everyone's responsibility, and it is a job requirement. In this presentation, we will 1) review the importance of safety practice in research laboratories; 2) discuss common issues identified in safety surveys; and 3) revisit three severe incidents that happened in academic labs, which led to death or injuries. "Safety First" is beyond a slogan, it is a requirement that ensures a safe learning and work environment.