AUTHENTICATION OF CHEMICAL AND BIOLOGICAL RESOURCES

This application makes use of a variety of biological and chemical reagents: established cultured cell lines, specialty chemicals and peptides, and plasmid DNA. The authenticity of these resources will be established according to NIH guidelines. Our efforts in each area are briefly described below.

1. **Cell lines:** Model mammalian cell lines will be used for the proposed studies. All cell lines will be obtained from ATCC and will be used for less than 12 passages. Cell lines will be tested for mycoplasma every 6 months.
2. **Specialty chemicals and peptides:** Chemical reagents will be obtained from common suppliers (Sigma Aldrich, etc.) that provide QC authentication. The integrity of purchased chemicals will also be verified using common analytical techniques (NMR, mass spec, etc.) All new small molecules produced during the proposed work will also be rigorously characterized (via NMR, mass spec, HPLC, etc.). It should be noted that the PI has over 8 years of experience in small molecule synthesis and characterization. Peptides produced via solid-phase peptide synthesis will be confirmed using LCMS.
3. **Plasmids:** Plasmids used to produce protein conjugates will be obtained from commercial sources with sequencing validation (Addgene). Plasmids produced in-house will be sequenced to confirm the open reading frame.