Liposomes and other nano-technology-enabled formulations can improve drug solubility, reduce toxicity, protect drugs from degradation, and target drugs to specific sites in the body. These advantages are highly desired for many applications, including: cancer therapies, imaging agents, vaccines, nutraceuticals, and cosmetics.

SRI’s Nanoparticle Drug Delivery team offers custom liposome formulation to meet your discovery and research needs. SRI also provides comprehensive services in physical and biological characterization of all types of nanoparticles.

**Formulation Capabilities**
- Custom liposome formulation
  - Hydrophobic and hydrophilic small molecules
  - Peptides, proteins, nucleic acids
  - Antibody- and peptide-mediated targeting
  - Enzyme- and pH-dependent drug release
  - Steric stabilization for extended circulation time

**Comprehensive Services**
- Analytical characterization of a broad range of nanoparticles
  - Liposomes, micelles, emulsions
  - Dendrimers, polymeric particles
  - Viruses, virus-like particles
  - Self-assembling biomolecules
  - Peptide and protein complexes
- Physical characterization
  - Particle size and size distribution
  - Particle morphology
  - Zeta potential
- Drug loading, release, and stability
  - Encapsulation efficiency
  - In vitro drug loading and release
  - Time-, temperature-, pH-dependent formulation stability
  - Liposome fusion and contents leakage
  - Custom 2D-LC-MS/MS assay development and validation
- In vitro bioactivity of nanoparticles
  - Cell binding and uptake
  - Optimization of targeting ligands
  - Hemolysis and complement activation
  - Plasma stability and protein binding
  - Cytotoxicity (necrosis and apoptosis)
  - Custom cell-based potency assays
- In vivo safety and efficacy
  - SRI’s preclinical development team offers comprehensive services for in vivo evaluation of your nanoparticle drug formulation, including pharmacokinetics, toxicology, immunogenicity, and efficacy in disease models
About SRI Biosciences

SRI International Biosciences teams with pharmaceutical and biotechnology companies, academia, foundations, and government agencies to solve important problems in global health. SRI Biosciences conducts basic research, drug discovery, and drug development, including contract research. SRI has all of the resources necessary to take R&D programs from idea to IND®—from initial discovery to investigational new drug applications to start human clinical trials—and specializes in cancer, immunology and inflammation, infectious disease, and neuroscience research.

To date, SRI has helped advance more than 100 drugs into clinical trials, including a number of its own discoveries, several of which have reached the market. SRI is also working at the nexus of science and technology to create new technology platforms for the next generation of drug discovery and development in areas such as diagnostics, drug delivery, medical devices, and systems biology.

About SRI International

Innovations from SRI International have created new industries, billions of dollars of marketplace value, and lasting benefits to society—touching our lives every day. SRI, a nonprofit research and development institute based in Silicon Valley, brings its innovations to the marketplace through technology licensing, new products, and spin-off ventures. Government and business clients come to SRI for pioneering R&D and solutions in computing and communications, chemistry and materials, education, energy, health and pharmaceuticals, national defense, robotics, sensing, and more.

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