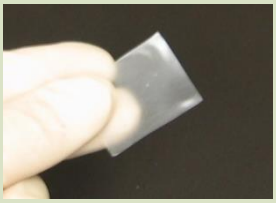
ImQuest BioSciences

Formulation Services

Novel Formulations and Delivery Vehicles

Whether your goal is to overcome solubility challenges, avoid first-pass metabolism, or control drug release, highly experienced ImQuest scientists will apply our expertise in the development of standardized and novel formulations and delivery vehicles to meet the specific requirements of your active pharmaceutical ingredient (API). Our team will enhance the opportunities for successful drug development utilizing our PharmaSENS platform.



Rapid Delivery with Quick Dissolving Films

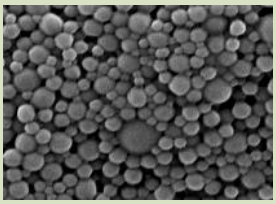
Quick-dissolving films represent a cost-effective and novel approach to drug delivery. We formulate oral and topical films with a wide variety of compositions and characteristics. Our ability to generate small quantity film batches allows a rapid iterative approach to your specific requirements.

Patches for Controlled Drug Release

Transdermal drug delivery may be advantageous when your goal is to achieve long-term sustained drug release while minimizing drug plasma level fluctuations. Our capabilities include novel patch designs and technology to deliver a large range of pharmaceutical products through the skin.

Gels and Creams for Topical Drug Administration

Depending on the treatment target, some drugs are most effective when delivered to mucous membranes. With expertise in the development of gel and cream formulations, we consider the physicochemical characteristics of your pharmaceutical product and physiological factors, such as pH, rheometry, and osmolality, to optimize your drug delivery vehicle.



Nanoparticles for Targeted Drug Delivery

Biodegradable nanoparticles may be utilized for controlled drug release and increased bioavailability. We have unique experience and expertise in the development of nanoparticles for highly effective targeted drug delivery and slow release delivery vehicles.

Suppository Dosage Forms

Suppositories for rectal or vaginal product administration are cost effective, widely used, and provide greater drug delivery than oral administration. We have the capability to manufacture suppositories with a wide range of physical and dissolving characteristics to meet your needs.

Formulation Services

Pre-formulation Services and Pharmaceutical Characterization

To evaluate the pharmaceutical characteristics, requirements, and potential of a drug candidate, we offer the following pre-formulation services:

- API physical characteristics
- Drug solubility
- Compound stability and drug degradation profile
- Stability indicating evaluations
- ICH environmental stability protocols
- Drug-excipient compatibility
- *In vitro* drug release and dissolution
- *In vitro/ex vivo* drug distribution assays
- HPLC analytical method development

Formulation Development Services

ImQuest formulation services complement our drug development programs. We will work to define the specific characteristics of a product to develop a successful formulation.

- ImQuest delivery vehicles
- Custom dosage form development
- Bioanalytical method development for *in vivo* studies

About ImQuest BioSciences

ImQuest BioSciences, a preclinical CRO, specializes in the development of drugs, vaccines and biologics for the treatment and prevention of infectious disease, cancer and inflammatory disease.

Contact ImQuest BioSciences to learn more.

Pharmacological Assessment

We offer a panel of assays designed to screen the potential absorption and metabolism of drug candidates.

Absorption

Drug Permeability Assessment

- Human colon carcinoma cell line Caco-2
- Uterine epithelium cell line HEC-1-A
- Human brain endothelial cells co-cultured with astrocytes
- Human hepatocytes
- Vascular endothelial cells
- Franz Cell permeability assays

Drug Transporter Interactions

- Recombinant p-glycoprotein (membrane fraction)

Metabolism

Metabolic Stability Determinations

- Microsomes
- Hepatocytes

Phase I – Modification Analysis

- Cytochrome P450 (HepaRG cells, hepatocytes, recombinant enzymes, and liver microsomes)
- Monoamine oxygenase (microsomal proteins)

Phase II– Conjugation Analysis

- UDP-glucuronosyltransferase (UGT-specific microsomes)

www.imquestbio.com 301.696.0274 info@imquestbio.com