

## LBL-Solv® – A Novel Tool for Drug Research



*1 Drug substance in micronized form is required*

New chemical entities (NCE) often are hampered by their low delivery properties. Accordingly, some 40% of NCE drop out from the research and development pipeline. Most of them are poorly soluble or non-soluble in water which makes them inappropriate for further development, i.e. for preclinical testing in animals. LBL-Solv® enhances the bioavailability of drug candidates, thus providing a novel tool for drug research.

LBL-Solv® is a nanosuspension and solubilization technique for poorly soluble compounds mainly consisting of an extreme increase of total drug surface area while maintaining a stabilization of drugs in suspension via controlled surface charge. The particles are typically manufactured according to the LBL-Technology®<sup>1</sup>.

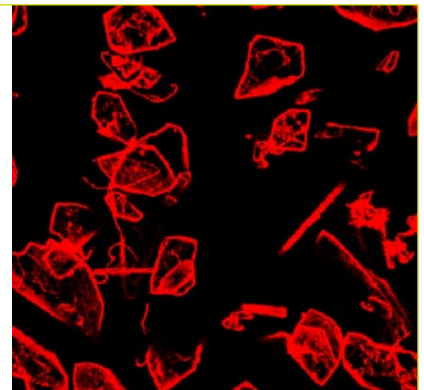
They have a diameter of below 2 µm and thus are equipped for parenteral drug administration.

### LBL-Solv® provides the following benefits:



*Stabilized nanosuspension*

- ENHANCED DISSOLUTION
- STABILIZED NANOSUSPENSION
- HIGH BIOCOMPATIBILITY
- NON-TOXIC FORMULATION
- HIGH SUSPENSION STABILITY
- HIGH PAYLOAD



The enhanced dissolution is achieved by the small particle size connected with an extreme increase of total drug surface area. Safe polymeric excipients (GRAS/FDA approved) ensure a high biocompatibility. The formulation requires no or reduced surfactants, which significantly decreases the formulation's toxicity. High suspension stability is provided by surface charge or sterical stabilization of multilayer-coated drug particles. High payload for increased drug volume per dosage unit is based on thin capsule layers.

## LBL-Solv® should be used for:



- FORMULATING NOVEL COMPOUNDS (NCE) FOR PRECLINICAL TESTING IN ANIMALS
- REFORMULATION OF COMPOUNDS FOR IMPROVING BIOAVAILABILITY
- REFORMULATION OF COMPOUNDS FOR THE REPLACEMENT OF SURFACTANTS AND SOLVENTS
- IMPROVEMENT OF INJECTABILITY

## LBL-Solv® can be customized to particular development needs by providing a high flexibility in:



- MATERIALS
- BIOCOMPATIBILITY
- PARTICLE SIZE
- PAYLOAD

In addition, LBL-Solv® enables the manufacture of drug particles which can be used as part of dry-dosage forms as well as being provided in aqueous phase. LBL-Solv® is patent protected worldwide.

Please feel free to contact us. We will engineer the right capsules for you.

