IDIFARMA is a leading Contract Research and Development Organization for the pharmaceutical and biotechnology industries.

Based in Spain, and with an increasingly international reach, IDIFARMA provides a full range of services that encompasses: drug formulation, development and validation of analytical methods, quality control and batch release in the EU, Pilot-Scale GMP-compliant manufacturing, ICH stability studies, clinical trial logistics management and regulatory support.

Our state-of-the-art facility features a purpose-built high containment plant for the manufacturing of GMP-compliant pilot batches in oral solid dosage forms, for both conventional and high potency drugs.

In our ongoing effort to find appropriate technological solutions to address existing formulation challenges, we have recently installed a complete Spray Drying suite comprised of a lab-scale Buchi B290 and a pilot-scale Gea Niro Mobile Minor. With this equipment, we can provide our clients a comprehensive solution to solubility, stability and bioavailability problems from formulation to scale-up production applying the latest micro and nanoencapsulation technologies.

IDIFARMA’s expertise, capabilities and proven track record make us the perfect partner for the development of your projects.

Spray Drying Technologies

Enhanced Solubility and Stability
Increased Bioavailability
Scaleability and Cost-Effectiveness
The innovative applications of Spray Drying technology offer a unique solution to some of the formulation challenges posed to the modern pharmaceutical industry, providing enhanced solubility, stability and bioavailability.

Pharmaceutical applications
- Modification of particle size and morphology
- Agglomeration of nanoparticles
- Drying suspensions
- Particle coating
- Immobilization of liquids and solid materials in a matrix
- Manufacturing of microcapsules and microparticles
- Molecule stabilization
- Amorphous compound isolation
- Solid dispersions
- Stability enhancement for peptides, proteins and antibodies
- Inhalation delivery of fine particles
- Controlled release
- Taste masking

Target molecules
- Small molecules
- Peptides
- Proteins
- Nucleic Acids

A suitable technology to replace
- Lyophilization
- Crystallization
- Micronization
- Filtering
- Extraction
- Centrifuging
- Milling
- Classification

Advantages
- Enhanced Bioavailability
- Increased Solubility
- Improved Stability
- Process speed and continuity
- Process scaleability
- Cost-effectiveness
- Repeatability

Spray Drying technology offers enhanced solubility, stability, and bioavailability, which are crucial for pharmaceutical applications. It provides solutions for the formulation challenges faced by the industry, such as the stabilization of molecules, improved delivery of fine particles, and controlled release.

The synergetic benefits that originate in IDIFARMA as a result of our experience and capabilities in pharmaceutical formulation, analytical and process development enhance the advantages provided by Spray Drying technology. By optimizing project times and quality while minimizing costs and risks, we ensure a seamless transition from laboratory to industrial manufacturing.