

**A**t Galenica, we are aware of the importance of relevant preformulation activities required for pharmaceutical product development, i.e.

- ◆ Polymorphism
- ◆ Salt selection
- ◆ Compatibility studies
- ◆ Hygroscopicity Studies
- ◆ Solubility Determination
- ◆ Photostability of API
- ◆ Prototype evaluations

#### FORMULATION SERVICES

Galenica offers high quality service to our partners for the development of oral, dermal, nasal, rectal, pulmonary and parenteral formulations of small molecules to peptides/proteins and biologics. Our Pharmaceutical Services help you conduct the studies necessary to support all phases of your product development. Our staff has long experience of development of all common dosage forms.

#### Galenica offers formulation development for the following dosage forms

- ◆ Solids
  - ◆ Tablets,
    - ◆ Immediate release
    - ◆ Controlled release
    - ◆ Effervescent
    - ◆ Lozenge
    - ◆ Chewable
    - ◆ Mini tablets
  - ◆ Pellets
  - ◆ Capsules, Gelatin, HPMC
  - ◆ Powders
- ◆ Semi-Solids
  - ◆ Creams
  - ◆ Ointments
  - ◆ Suspensions
  - ◆ Gels
  - ◆ Emulsions
  - ◆ Suppositories
- ◆ Liquids
- ◆ Other non-traditional dosage forms
  - ◆ Medicated chewing gums
  - ◆ Medicated shampoos



Preformulation is a critical activity often overlooked in the development of new or existing pharmaceuticals

## Galenica works with state of the art equipment

### Solid dosage forms

- ◆ Tablet presses from fully instrumented rotary machines to single punch machines, Korsch and Manesty
- ◆ Automatic and semi-automativ capsule fillers, Dott. Bonapace and Torpac
- ◆ Automatic capsule bander, Bonapache
- ◆ Milling equipment, Quadro Comil U10 and U5, Retch and IKA
- ◆ Fluid Bed equipment, Vector FL-M-3 and Uni-Glatt both with top spray and Wurster insert
- ◆ Pan Coater, O'Hara Labcoat MX
- ◆ High Shear Mixer/Granulator, Diosna P25, Zanchetta Rotolab single pot, DonsmarkQMM-II
- ◆ Tumble mixers, Apex 50 Litre V-blender, Sevin DC blenders from 10–50 Liters and WAB Turbula blenders 1–17 Liters

### Semi-solid dosage forms

- ◆ Krieger multiprocessor MMU-20
- ◆ High pressure homogenizers, APV Rannie MiniLab 7.30 and 8.30, Avestin Emulsiflex C5 and C50
- ◆ Homogenizer, Branson Minisonic 4PT,
- ◆ High shear mixers, IKA Ultra Turrax, Kinematica Polytron, Heidolph Diax 600
- ◆ Suppository Filler, Erweka AR 400

Galenica offers both innovative and generic development capabilities

