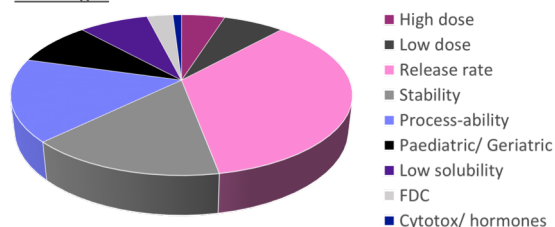


Pensatech Pharma is a specialized contract R&D partner for advanced drug delivery solutions. Based on a comprehensive suite of classical and innovative drug delivery systems technologies and our unique, science- and data-based expertise, we are designing and developing innovative dosage forms for new and existing APIs.

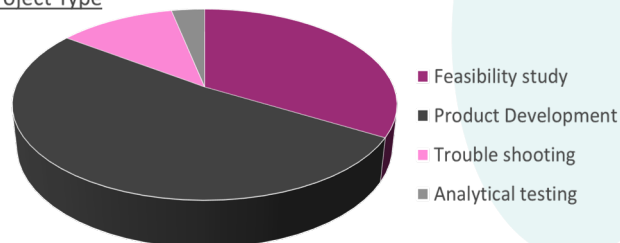
By addressing the most difficult development issues and specific product requirements through commercially viable advanced drug delivery and dosage form technologies, we add unique value to the product portfolio of our customers.

Pensatech Pharma offers a wide range of drug delivery technologies especially for difficult-to-formulate drug molecules, covering all administration routes at any development stage.

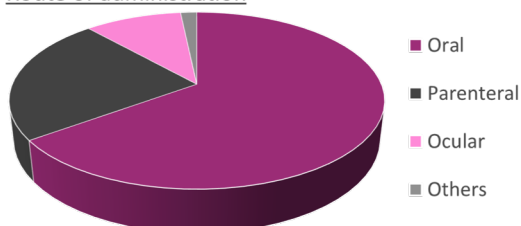
Challenges



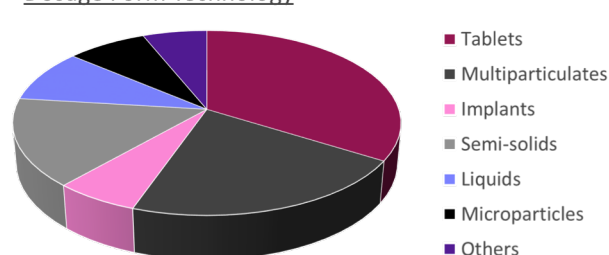
Project Type



Route of administration



Dosage Form Technology



**The figures show our successful drug delivery projects 2012-2020**

<sup>1</sup>Tablets: IR, MR, bi-layer

<sup>2</sup>Multiparticulates: pellets, mini-tablets

<sup>3</sup>Semi-solids: gels, ointments

<sup>4</sup>Liquids: solutions for ophthalmic use and freeze-dried formulations

<sup>5</sup>Microparticles: parenteral biodegradable formulations

**Our successful drug delivery technologies and partnerships cover:**

- ✓ Parenteral IR and depot DDS: biodegradable PLGA micro-/nanoparticles and implants, aqueous and oily solutions, micro- and nano- drug suspensions, polymeric and lipidic nanocarriers, liposomes, lyophilized forms
- ✓ Bioavailability enhancement: micro- and nano drug suspensions, solid solutions and dispersions (HME, spray drying, fluidized bed)
- ✓ Oral modified release drug DDS: granules, pellets, minitables, osmotic tablets, matrix and coated systems, high dose, fixed dose combination
- ✓ Local DDS: e.g., ophthalmic and dermal
- ✓ Patient centric forms (paediatric and geriatric): multiparticulates, minitables, taste masking, fixed dose combinations, fast disintegrating oral drug delivery systems (ODT), swallowability enhancement
- ✓ Viable formulation and processing for very high/low dosed drugs
- ✓ Improved product stability

**Our partnership supports every requirement like:**

- ✓ Preformulation
- ✓ Formulation and Process development:
  - ✓ Formulation and technology assessment and selection
  - ✓ Feasibility studies
  - ✓ Development of enabling formulations for rapid evaluation in the clinic
  - ✓ Full development of a wide range of pharmaceutical dosage forms
- ✓ Analytical method development, optimization, transfer, validation and stability studies
- ✓ Quality control testing (physicochemical and pharmaceutical analysis) as well as batch certification of finished products and investigational medicinal products in our GMP-certified laboratories
- ✓ Regulatory, IP and exclusivity assessment and guidance
- ✓ Formulation development of highly potent APIs and cytotoxics
- ✓ Formulation development of controlled substances (narcotics)



**Application laboratory for advanced drug delivery**

- Formulation and dosage form development for challenging new chemical entities (NCE`s) or existing drugs e.g., 505(b)(2), drug repurposing

Pre-formulation Services	Formulation & Process Dev. Services	Analytical Development Services
Stability Studies	GMP QC & Batch Certification Services	Partnering opportunities

**Innovation laboratory for advanced drug delivery**

- Idea generation and feasibility for innovative product development
- Concept and technical product development for out-licensing or partnering

- ✓ We believe that any innovation starts with a challenge or unusual idea, however each challenge or idea is worth while to be explored
- ✓ We believe in utilizing our expertise, breath of technologies and capabilities we will be able to find the right answer for your challenges and ideas
- ✓ We believe in data driven science and creative solutions to truly add the value your challenging and ambitious projects deserve

Please contact us at [info@pensatechpharma.com](mailto:info@pensatechpharma.com) to discuss how we could assist you during the development of your product.