



Penn Pharmaceutical Services
Tredegar Gwent NP22 3AA

Enquiries +44 (0) 1495 713 607
Telephone +44 (0) 1495 711 222
Facsimile +44 (0) 1495 711 225

Email enquiries@pennpharm.co.uk
Visit www.pennpharm.co.uk



FORMULATION DEVELOPMENT



PENN PHARMACEUTICAL SERVICES

WITH YOU EVERY STEP OF THE WAY

CMC CONSULTANCY
FORMULATION DEVELOPMENT
ANALYTICAL DEVELOPMENT
CLINICAL TRIAL SUPPLY
CONTRACT MANUFACTURING
QP RELEASE SERVICES



Penn's highly qualified Formulation Development team has vast experience of practical pharmaceutical formulation. With a track record in international developments, you can be assured of an innovative technical service to develop your optimised formulation.

Working closely with other departments, this optimisation spans across rapid pre-formulation studies on new drug candidates to reformulation of existing pharmaceuticals.



FORMULATION DEVELOPMENT

PEOPLE

Meet the team who will ensure the smooth delivery of your Formulation Development project. Without the hinderance of specific IP solutions our experienced Technical Specialists can work with you to apply the most effective and flexible solution. With the majority of our technical experts originating from major pharmaceutical companies there is a depth of talent to draw upon in addressing your specific challenge.

CORE SERVICES

Working to both US and European standards, whilst conforming to cGMP and other relevant regulatory standards, we offer you an extensive Formulation Development service which includes:

- *Rapid pre-formulation screening*
- *Formulation of APIs into a variety of standard dosage forms:*
 - *Tablets, capsules and powders*
 - *Semi-solids (gels, creams and ointments)*
 - *Liquids, solutions, suspensions and emulsions*
 - *Suppositories and pessaries*
 - *Granules for reconstitution*
- *Working with modern and novel dosage forms, devices and delivery systems*
- *Specialist knowledge for film and enteric coating of tablets and capsules*
- *Conduct of compatibility studies*
- *Design and manufacturing of clinical batches including:*
 - *Small hand fill batches*
 - *Larger scale batches by automated equipment*

ACHIEVEMENTS

Penn has successfully contributed to a considerable number of development programmes requiring bespoke formulation solutions. For example, we have;

- *Enteric coated soft gel capsules*
- *Improved availability using a hot melt system*
- *Solved patient non-compliance with sustained release solutions*
- *Reduced batch variability by optimising development processes*

QUALITY

Penn has an excellent cGMP inspection record with MHRA and FDA and is authorised for both drug materials and medical devices.

Penn also has a mature and stable Quality Management System which is tested by more than 50 customer audits each year in addition to FDA and MHRA scrutiny. Holding all relevant MHRA licenses, Penn is ideally equipped to provide compliant services in Formulation Development, Clinical Trial Supply, Contract Manufacture and Analytical Development. In addition Penn's large and experienced QP team provides a diverse knowledge and experience of a complete range of pharmaceutical dosage forms; providing guidance to customers on everything from API to Sterile injectables.

Penn has an effective and recognised environmental management programme ensuring that environmentally conscious customers are assured of a thoughtful and sensitive solution.

THE COMPLETE SERVICE

At Penn Pharmaceutical Services we offer you a tailored service that differentiates us as an organisation that cares for the success of your product. You can be sure that Penn will be with you every step of the way. If you would like to add further value to your business, choose another of our services:

- **CMC CONSULTANCY**
- **ANALYTICAL DEVELOPMENT**
- **CLINICAL TRIAL SUPPLY**
- **CONTRACT MANUFACTURING**
- **QP RELEASE SERVICES**

YOUR NEXT STEP

No matter how large or small your needs, call **+44 (0) 1495 713 607**, email enquiries@pennpharm.co.uk or visit www.pennpharm.co.uk today to discuss your exact requirements.

PENN – WITH YOU EVERY STEP OF THE WAY