Upperton
Pharma Solutions

Technical Services

We Offer Our Clients an Extensive Range of Services, From Early Preformulation/Feasibility Studies, Right Through to Dosage Form Development and Clinical Trial Manufacturing

Our Business

Upperton Pharma Solutions is an early phase Pharmaceutical Contract Development and Manufacturing Organisation (CDMO) with over twenty years of experience in the development of liquid and dry powder pharmaceutical dosage forms.

Upperton's expertise covers a wide range of pharmaceutical technologies, from traditional powder blending, granulation, tabletting and capsule filling to more advanced enabling technologies such as spray drying and jet milling, for bioavailability enhancement, and particle engineering for targeted pulmonary and nasal delivery.

Our Pharmaceutical Sciences team have extensive experience in formulating and delivering a wide range of molecules including:

- Small molecules (APIs)
- Biologics (proteins, peptides, vaccines)
- Controlled drugs covered by UK Home Office Licences Schedules 1-4

Clinical trial manufacturing is undertaken in our MHRA licensed facility, and dosage forms include **liquid solutions and suspensions, tablets, capsules and pulmonary/nasal devices.** Products are tested in our licensed QC laboratories and released by our QPs for use in clinical trials around the world.

Handling Capabilities

In our ISO 8 clean room we handle a wide range of APIs; typically SafeBridge Category 1-3. However, by using our isolator technology we can formulate and fill more potent molecules on a case-by-case basis.

Analytical Services

Upperton's pharmaceutical development and manufacturing services are underpinned by a comprehensive in-house analytical capability; from traditional chemical testing techniques such as HPLC, GC, UV and FTIR, to a more advanced solid-state analysis.

The physical and thermal properties of dry powder formulations are characterised using techniques including Dynamic Vapour Sorption (DVS), Differential Scanning Calorimetry (DSC), powder X-ray Diffraction (pXRD), Thermogravimetric Analysis (TGA), laser particle size analysis and Scanning Electron Microscopy (SEM).

Analytical methods are developed in-house and qualified to a phase-appropriate level by the Upperton QC team. These are used to guide product development, right through to QP release of clinical products and shelf life assignment based upon ICH stability studies. All data generated is made available to support regulatory submissions.

Driven by experts, led by science

Get in touch to find out more: contact@upperton.com

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Key Pharmaceutical Processing Equipment (and Scale)

Process	Equipment	Process Capability
Dia/Ultrafiltration	GE Healthcare	Batch sizes up to 50L
Emulsification	LM10 Microfluidiser	Batch sizes up to 20L
Powder Handling		
Blending	T2&T10 Turbula	10g - 1kg
	PharmaTech Blender	100L vessel size
Particle Size Reduction	Quadro Comil GS100	Up to 2kg/hour
	M3 Attritor Jet Mill	Up to 1kg/hour
Dry Granulation/Roller Compaction	TFC-LAB MICRO	500g/hour
Drying Equipment		
Spray Drying	Buchi B290 (x6)	100mg - 150g/day
Spray Drying	ProCepT 4M8-TRX (x2)	100mg - 250g/day (air/ nitrogen)
Spray Drying	GEA Niro SD Micro	10g - 3kg/day (air/nitrogen)
Spray Drying	GEA Niro Mobile Minor (x2)	50g - 5kg/day
Freeze Drying	Edwards SuperModuLyo	Single vial to 6L solution
Vacuum Drying	Cole Parmer	10g - 5kg (3shelf unit)
Solid Oral Dosage Form		
Compression	Futorque Rotary Press	70,000 tablets/hour
Deduster	Kramer E80-N	(In-line to press)
Metal Detector	Met 30+	(In-line to press)
Weight Sorter	SADE SP840	2,500/hour
Precision (Hand) Filling	Ohaus 5 Place Balance	150 units/hour per operator
Hand Filling Liquid capsules, Devices and Vials	HandyStep Tough S Repeating Pipette	150 units/hour per operator
Precision Filling	Quantos Balance/Filler (x2)	120 units/hour
Automated Capsule Flood fill	Bonapace In-Cap	3,000/hour
Semi-Automated Capsule Fill	Profill	2,000/hour
Sachet Filling Approx	3P	Approx 500/hour
Coating Tablets/Capsules	Ohara Aqueous Coater	Multipan up to 1.5kg/batch
Packaging	RM Bench Top Bag Sealer	~1,000/hour