

# Formulation Development Services

## - Modified Release Technologies

WuXi AppTec is a global leader in providing discovery, testing and manufacturing services for the pharmaceutical, biotechnology and medical device industries. Research-driven and customer-focused, with operations in China and the U.S., WuXi AppTec offers a broad and integrated portfolio of services designed to assist our customers with cost-effective and efficient outsourcing solutions.

**WX  
LISTED  
NYSE**

**P**harmaceutical Development Services (PDS) at WuXi AppTec provides services from formulation development, clinical trial product manufacture to product registration-quickly and seamlessly moving NCEs from pre-clinical to NDA filing.

**Only EMEA GMP Certified Facility for IMP in China**



### Platform Technologies

- Single and multi-layer tablets
- Osmotic tablets
- Tablet within tablets
- Liquid drug layering on pellets and functional coating
- Powder drug layering on pellets and functional coating
- Extrusion spheronization and functional coating

### Delayed Release

- Enteric coating on tablets and on drug layered pellets for release in intestine region
- Enteric coating on tablet and on drug layered pellets for release in colon region

### Sustained Release

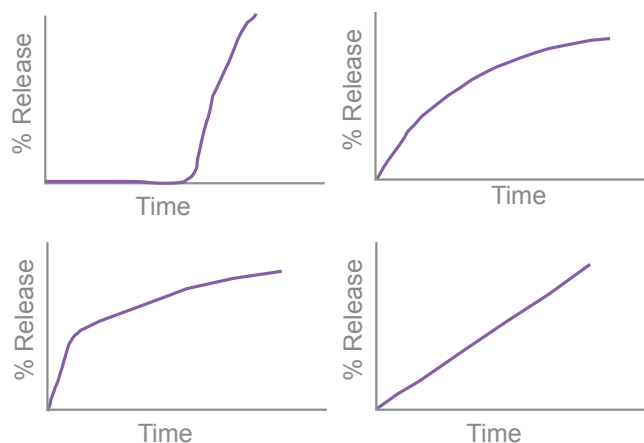
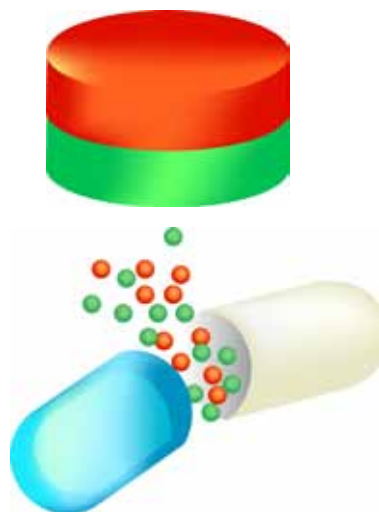
- Matrix tablet using polymers
- Zero order release using tablet
- Barrier membrane coating on drug layered pellets

### Combination of Release Profile

- IR SR combination
- Pulsetile release

### Certifications for Facility

- EMEA certified for manufacturing of tablets and capsules
- Certified by QP's from customers



**For more information on WuXi AppTec's services please contact:**

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#### China

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## Fact Sheet

- Multiple GMP manufacturing suites for simultaneous drug product manufacturing
- Dedicated development areas for early and late phase projects
- Capability to handle hygroscopic and light sensitive compounds
- Established track record for on time delivery of clinical batches for customers in US and Europe

## State of the Art Equipment Enabling all Unit Operations

- **Granulation**  
GLATT TMG, TIANHE KJZ-10, SHENGLIAN HLSG-50 for wet granulation  
Mini GLATT, GLATT GPCG 1.1, GPCG-10/DLB-5 for fluid bed granulation  
TFC Labo Benchtop Roll Compactor, Alexanderwerk AG WP120 for dry granulation
- **Bottom spray drug layering and functional coating**  
Wurster column with GLATT GPCG 1.1/ GPCG-10/DLB-5 for fluid bed granulation
- **Powder drug layering**  
Tangential rotary granulator- GPCG-10/DLB-5
- **Drying**  
GLATT GPCG 1.1, Retsch, GPCG-10/DLB-5
- **Milling**  
COMIL U-5, Oscillating granulator
- **Blending**  
Turbula, V-blender, HDB-200 Bin blender
- **Tabletting**  
Korsch XL 100 automated tablet press, RIVA Mini press MII
- **Coating**  
HONGKANG DBY-400 and BGB-10F
- **Encapsulation**  
BONAPACE AB4/7 & BB3/ S semiautomatic capsule filling machine  
BONAPACE In-CAP fully automatic filler-powder, pellet and liquid fill  
Ultra 8 II for powder and tablet filling / overencapsulation
- **Packing**  
BONAPACE In-PACK semiautomatic machine-Alu-Poly/Alu-Alu  
Fully automatic blister packing machine for Alu-Poly/Alu-Alu  
Bulk packaging line for bottle packing



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