



CAPABILITY

Pharmaceutical Processing



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Aging populations, the soaring cost of drug development, and resource constraints impeding the adoption of emergent technologies are just some of the challenges facing the pharmaceutical industry today.

The increasing financial burden on the healthcare system as a whole has led to a pressing need for more effective and patient-centric medication. The evolution of pharmaceutical clinical development and manufacture is vital and there are many ways CPI can work with industry to bring about change. Here at CPI, we are able to support you with the development, optimisation and demonstration of a bespoke manufacturing process that works for the production of your pharmaceutical. Our highly experienced team offer a range of capabilities in both oral solid dose and parenteral dose pharmaceutical manufacture.

Next-generation processing & analytics

We aim to enhance both your small and large molecule API production by utilising our developing cGMP-capable, disruptive processing solutions. Our customers are able to test and evaluate processes using a wide range of continuous, digital and autonomous manufacturing technologies enabling flexible and adaptable manufacturing solutions.



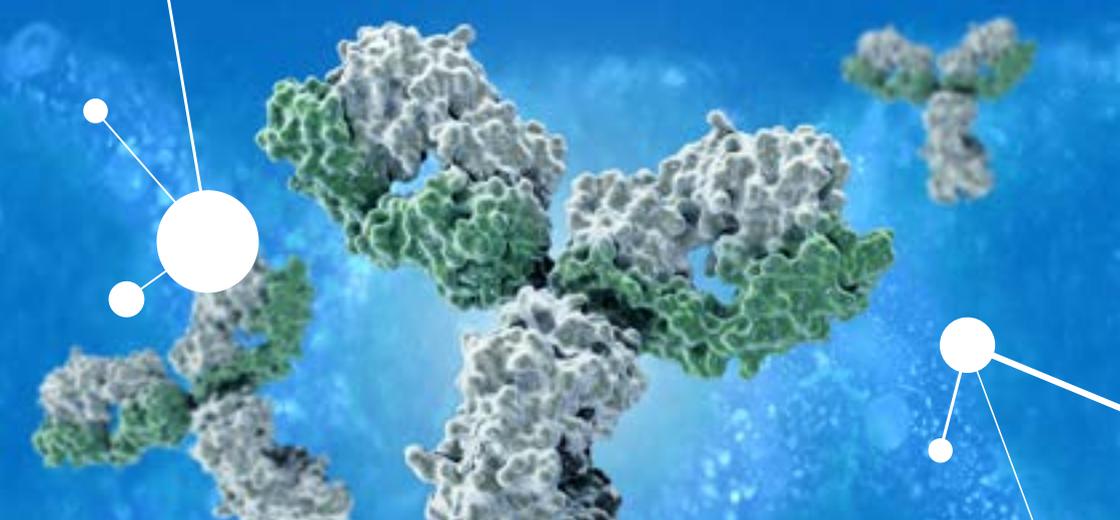
This enables you to create a bespoke process that is perfectly tailored to molecule and market needs, be it just-in-time or real-time-release manufacturing. We offer:

- Advanced process controls through digital design and integrated process analytics
- Reduced capital outlays and overall inventory costs
- Greater production efficiency

Enabling smart & continuous pharmaceutical processing

We partner with our customers to innovate pharmaceutical processing. We have developed significant capability in smart continuous wet-granulation technology including an integrated combination of process analytical technology (PAT) and statistical quality by design (QbD) methods to develop autonomous process control systems.

Linked with a digital twin, this enables rapid future process development through predictive digital design, based on real experimental data, for accurate modelling and increased development speed at reduced cost.



Nanomedicines and API Formulation

We provide solutions to meet the evolving needs of the pharmaceutical industry. Several novel and cutting-edge techniques, such as active encapsulation and nanoformulation, enable active drug particle delivery in a controlled time- and location-specific manner. Our scientific expertise and nanomedicine development services integrate microfluidic and analytical technologies to provide formulation solutions to tackle clinical efficacy issues associated with right-time, right-place delivery, such as active delivery through the blood-brain barrier for neurological indications or orally-delivered proteins. We also offer a variety of formulation services designed to improve efficacy and rapidly progress development. Services include API formulation feasibility studies and powder formulation characterisation. With established success from FMCG to consumer care, we translate this experience to cross-sectoral formulation challenges and utilise high throughput robotics for rapid formulation screening and development.

Let's innovate together

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