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Quotient Sciences

Molecule to cure. Fast.™

Charles River and Quotient Sciences Collaboration

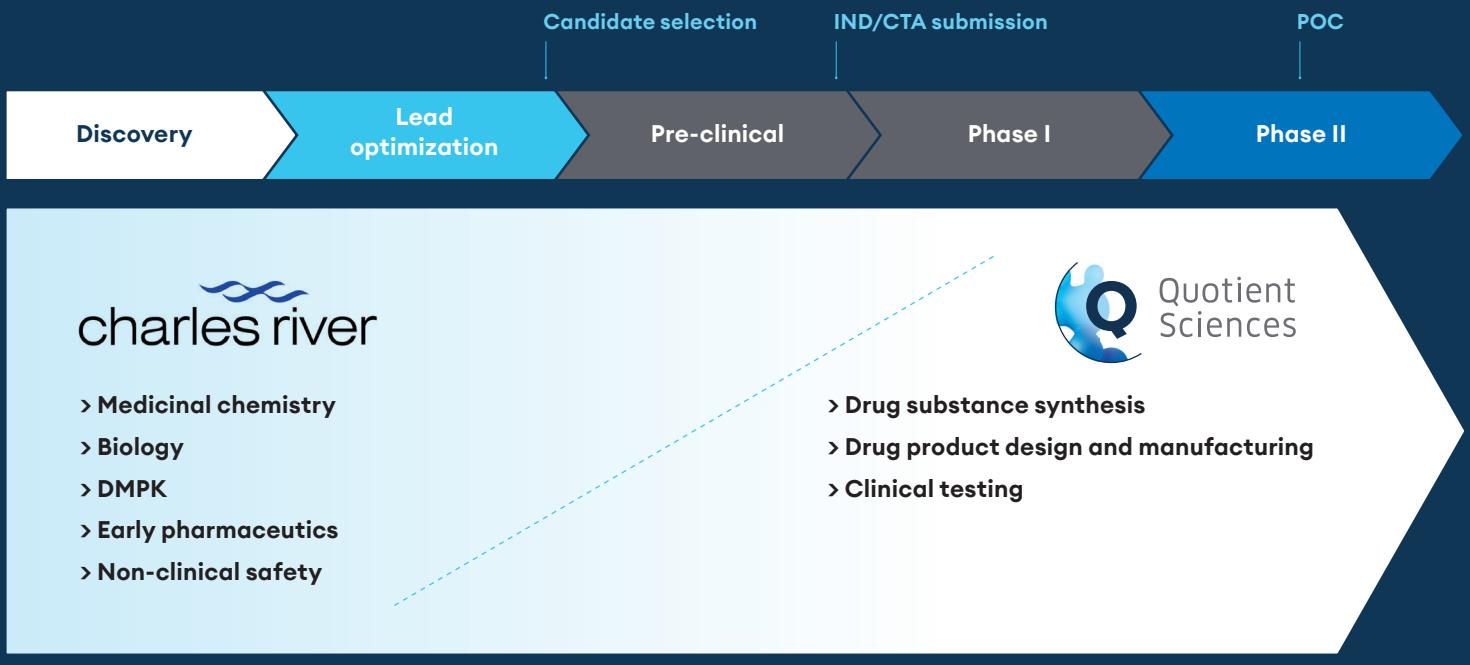
Seamlessly integrated programs to bridge molecules from discovery into clinical development

There are many challenges and considerations that drug developers face when bridging from early drug discovery to pre-clinical and onward towards the clinic. At this early stage in the development process, it is critical to partner with experienced service providers who can remove hurdles, provide technical expertise, and work together to seamlessly transition your molecule to the next phase of development.

Charles River provides medicinal chemistry, biology, drug metabolism and pharmacokinetics (DMPK), early pharmaceutics, and non-clinical safety services to support customers from early discovery up to Investigational New Drug (IND)/Clinical Trial Authorization (CTA) submission.

Quotient Sciences provides drug substance synthesis, drug product design and manufacturing, and clinical testing services, supporting customers from lead candidate selection all the way through to commercialization.

Our collaboration offers customers unique integrated programs that bridge molecules from early discovery to proof of concept (POC) and beyond. This removes obstacles from the critical path, reduces development risks, eliminates the white space in pre-clinical drug development, and shortens the pathway to clinical development. The overlap between Charles River and Quotient Sciences' capabilities provides flexibility for customers, dedicated project teams, and a bespoke service that is tailored to each development program.



Experienced, market-leading experts

Charles River

- >80% of US Food and Drug Administration (FDA)-approved drugs over the last 3 years were worked on by Charles River
- >90 pre-clinical candidates discovered
- >420 patents with Charles River scientists named as co-inventors

Quotient Sciences

- >150 new molecules worked on each year
- >200 peer-reviewed publications and posters with customers
- 80% of all UK Phase I first-in-human (FIH) trials are conducted at Quotient Sciences
- 500 integrated Translational Pharmaceutics® programs completed, saving an average of 18 months of development time

Together, a leading market position

- >100 years of combined company experience in drug development
- Supported 100s of biotechs and all top 20 multi-national pharmaceutical companies
- 1000s of molecules worked on across all stages of development

How we work with our customers

We offer integrated programs, with turnkey solutions to shorten development timelines, including:

- Discovery – lead optimization and early pharmaceutics
- Candidate development – selecting the right molecules to move into development
- Safety assessment – late lead optimization to IND-enabling studies and beyond
- Early development – accelerating molecules through FIH to POC
- Late development – accelerating products through to market authorization

Alternatively, we also offer individual, tailored services to meet specific customer needs, including:

- Discovery services
- Research models
- Safety assessment
- Drug substance
- Formulation development
- Clinical trial manufacturing
- Clinical pharmacology
- Bioanalysis
- Data sciences
- Commercial manufacturing
- Regulatory services
- Drug development consulting

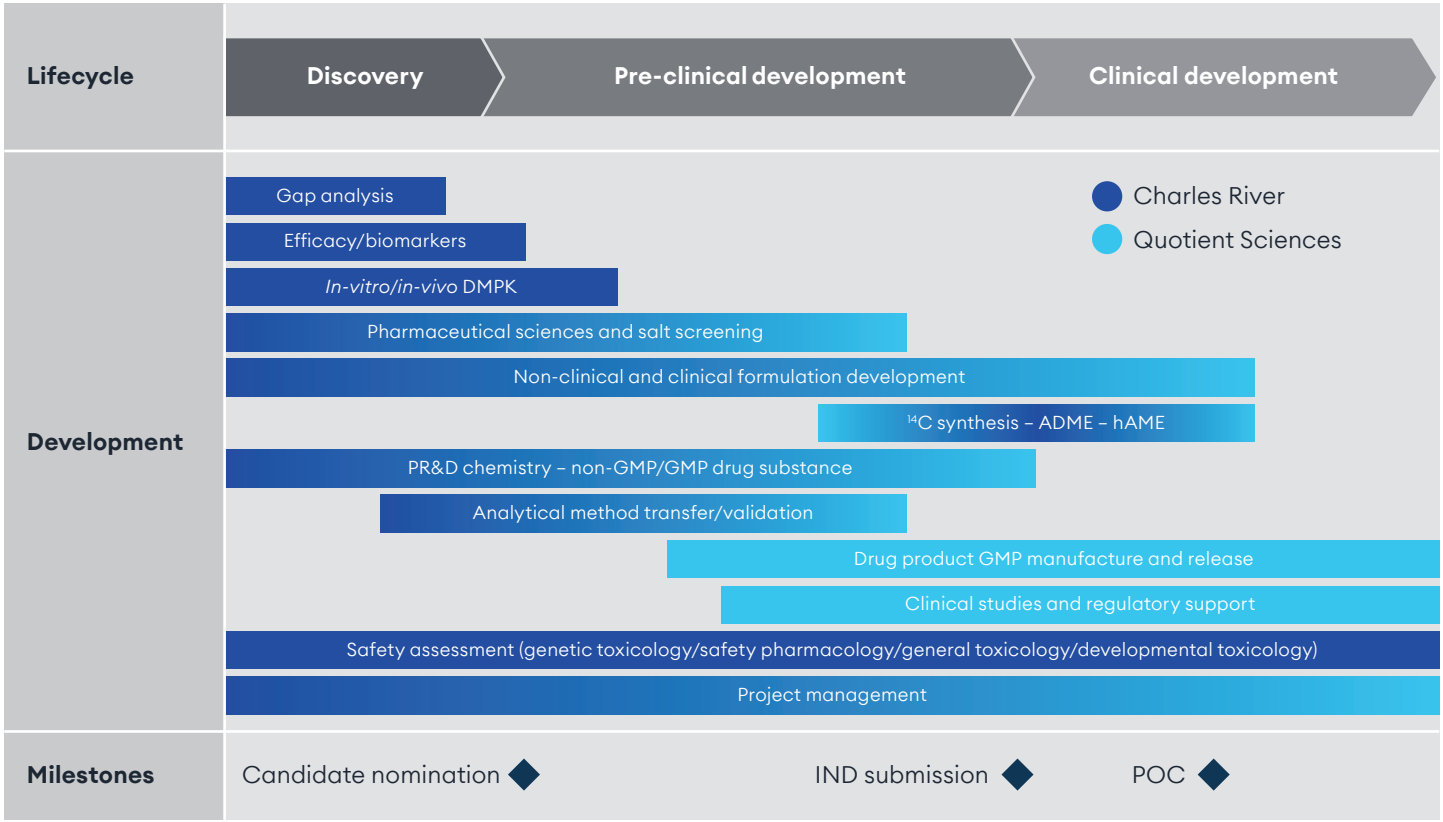
How we deliver integrated programs

>150
project managers

100s
of years of project management experience

>98%
of our customers plan to work with us again

Our approach to integrated program delivery is designed to remove the white space in drug development. Scientific solutions and key development goals are at the heart of every program, and our agile and adaptive approach ensures that we meet project needs. Each integrated program has a dedicated project governance team that spans the entirety of the project to ensure on-time delivery. Our customers benefit from a culture of quality science, technical excellence, and direct peer-to-peer communication with subject matter experts to drive strong collaboration.



Abbreviations: ADME = absorption, distribution, metabolism, and excretion study; GMP = Good Manufacturing Practice; hAME = human absorption, metabolism, and excretion study; PR&D = process research and development

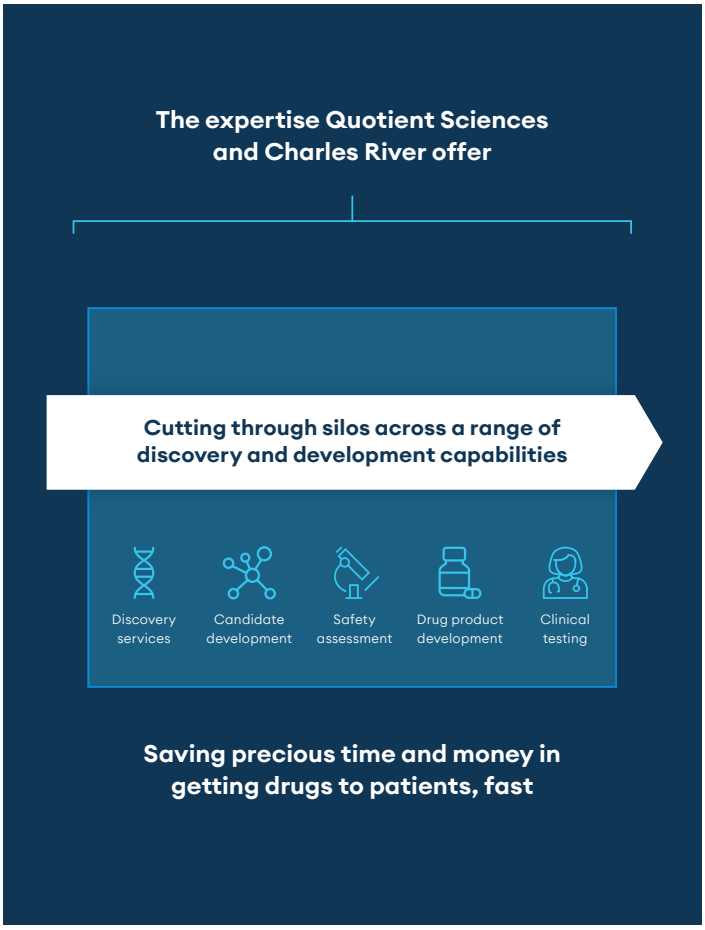
Benefits for our customers

Holistic scientific advice and recommendations
We work in multi-disciplinary project teams, offering unique discovery, CMC (chemistry, manufacturing, and controls), clinical, and biopharmaceutics know-how all within one team. Projects are data-driven and led by the science.

Tight integration of discovery and development activities
We cut through traditional industry silos and accelerate timelines. In our highly interactive project teams, cross-functional experts work closely using cutting-edge technologies. This provides earlier and more informed decision-making, efficient technology transfer, and joint problem-solving.

Improved supply chain and outsourcing
We manage the critical path and scheduling of activities for our customers. There is a seamless transition across the partnering organizations, providing a global reach and flexible capacity.

Seamless transition into clinical research
We provide the full set of deliverables required to be "clinic ready", minimize risks, and improve the chances of clinical success.



Case study

Discovery to provision of clinical active pharmaceutical ingredient (API)

For a US biotech client focused in the oncology space, Charles River rapidly identified an alternative candidate molecule based on efficacy data and a promising biopharmaceutics profile to progress into late lead optimization. Quotient Sciences provided GMP manufacturing of the small molecule and associated activities to support clinical studies. Early engagement with Quotient Sciences led to rapid supply of increasing quantities of API and parallel safety assessment and clinical formulation design.

Key project benefits included:

- efficient technical transfer within established project teams
- minimal transition time between discovery and development
- rapid process development of the chemistry, improving the overall yield from approximately 40% to 70%
- removing chromatography steps by selecting an appropriate salt form that was advantageous.

The outcome was that >100 g of GMP API was delivered to scheduled timelines and specifications, achieving significant savings for the client.

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Every complex discovery program faces a unique set of challenges. Whether it's a resource gap, lack of infrastructure, or an unexpected scientific result, navigating around potential pitfalls is essential for advancing your program successfully. Charles River has successfully identified and assessed novel therapies, with over 420 patents and 92 pre-clinical drug development candidates delivered to clinic since 2001. Our chemistry, biology, ADME, and pharmaceutical sciences teams work closely together to identify and optimize the best compound candidates from the earliest stages of hit identification all the way through to FIH and beyond.

Contact Information

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Quotient Sciences

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Quotient Sciences is a drug development and manufacturing accelerator providing integrated programs and tailored services across the entire development pathway. Cutting through silos across a range of drug development capabilities, we save precious time and money in getting drugs to patients. Everything we do for our customers is driven by an unswerving belief that ideas need to become solutions, molecules need to become cures, fast. Because humanity needs solutions, fast.

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