



# Charles River Laboratories International, Inc

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Meeting with Management  
September 12, 2019

# Safe Harbor Statement

Caution Concerning Forward-Looking Statements. This presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may be identified by the use of words such as “anticipate,” “believe,” “expect,” “intend,” “will,” “may,” “estimate,” “plan,” “outlook,” and “project” and other similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These statements also include statements regarding risks and uncertainties associated with the unauthorized access into our information systems reported on April 30, 2019, including the timing and effectiveness of adding enforced security features and monitoring procedures, the percentage of clients affected by the unauthorized access, and the potential revenue and financial impact related to the incident; our projected 2019 and other future financial performance whether reported, constant currency, organic, and/or factoring acquisitions including, with respect to Charles River as a whole and/or any of our reporting or operating segments or business units, revenue and revenue growth rates, operating margin, earnings per share, capital expenditures, operating and free cash flow, specified costs (including unallocated corporate expenses), net interest expense, effective tax rate, average diluted share count, global efficiency initiatives, cost increases including the impact of wage adjustments, pricing, foreign exchange rates, leverage ratios, days sales outstanding, and the operating results of our businesses; the expected performance of our venture capital investments; the future demand for drug discovery and development products and services, and our intentions to expand those businesses, including our investments in our portfolio; the impact of our facility realignments; our expectations regarding stock repurchases and debt repayment; the development and performance of our services and products; market and industry conditions including industry consolidation, outsourcing of services and identification of spending trends by our clients and funding available to them; the potential outcome of, and impact to, our business and financial operations due to litigation and legal proceedings and tax law changes; the impact of US tax reform passed in the fourth quarter of 2017; our success in identifying, consummating, and integrating, and the impact of, our acquisitions, including Citoxlab, on the Company, our service offerings, client perception, strategic relationships, revenue, revenue growth rates, earnings, and synergies; our expectations regarding Citoxlab’s financial performance; our strategic agreements with our clients and opportunities for future similar arrangements; our ability to obtain new clients in targeted market segments and/or to predict which client segments will be future growth drivers; the impact of our investments in specified business lines, products and geographies; our ability to develop and achieve our operational efficiencies and improvements, including with respect to technological improvements, sustainability, and other ESG initiatives; and Charles River’s future performance as otherwise delineated in our forward-looking guidance. Forward-looking statements are based on Charles River’s current expectations and beliefs, and involve a number of risks and uncertainties that are difficult to predict and that could cause actual results to differ materially from those stated or implied by the forward-looking statements. Those risks and uncertainties include, but are not limited to: the ability to successfully integrate businesses we acquire; the ability to execute our cost-savings actions and the steps to optimize returns to shareholders on an effective and timely basis; the timing and magnitude of our share repurchases; negative trends in research and development spending, negative trends in the level of outsourced services, or other cost reduction actions by our clients; the ability to convert backlog to revenue; special interest groups; contaminations; industry trends; new displacement technologies; continued availability of products and supplies; loss of key personnel; interest rate and foreign currency exchange rate fluctuations; changes in regulations by the FDA, USDA, or other global regulatory agencies; changes in law; changes in tax regulation and laws; changes in generally accepted accounting principles; and any changes in business, political, or economic conditions due to the threat of future terrorist activity in the U.S. and other parts of the world, and related U.S. military action overseas. A further description of these risks, uncertainties, and other matters can be found in the Risk Factors detailed in Charles River’s Annual Report on Form 10-K as filed on February 13, 2019 and in its Form 10-Q as filed on July 31, 2019, as well as other filings we make with the Securities and Exchange Commission. Because forward-looking statements involve risks and uncertainties, actual results and events may differ materially from results and events currently expected by Charles River, and Charles River assumes no obligation and expressly disclaims any duty to update information contained in this presentation except as required by law.

## Regulation G

This presentation includes discussion of non-GAAP financial measures. We believe that the inclusion of these non-GAAP financial measures provides useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often one-time charges, consistent with the manner in which management measures and forecasts the Company’s performance. The non-GAAP financial measures included in this presentation are not meant to be considered superior to or a substitute for results of operations prepared in accordance with GAAP. The company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules and regulations. In accordance with Regulation G, you can find the comparable GAAP measures and reconciliations to those GAAP measures on our website at [ir.criver.com](http://ir.criver.com).



# Strategic Overview

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James C. Foster  
Chairman, President & Chief Executive Officer

# Every Step of the Way

**Partnering across the drug discovery and early-development spectrum to help clients bring novel therapies to market for the patients who need them**


# Focus of CRL 2019 Investor Day

- Overview of strategic and business focus, including our **extensive scientific capabilities** and our adaptation to the changing trends in science and drug research
  - CRL addressing emerging trends such as **cell & gene therapy** and **large molecule discovery**
- Our commitment to generating **meaningful operating margin improvement** over the next 2 years
  - Expect to achieve **20% target in FY 2021**
- Update on our recent acquisition of **Citoxlab**
- Believe we are well positioned to **deliver high-single-digit organic revenue growth** and **faster earnings growth** over the longer term
  - Delivered **exceptional revenue and EPS growth** over last 5 years





# The Leading, Early-Stage Contract Research Organization



CRL Worked  
on

**85%**  
of FDA-  
approved  
drugs in 2018

**Doubled**  
revenue and  
non-GAAP EPS  
since 2014  
(2014-2019E)



**#1**

Market position in  
RMS, Safety  
Assessment &  
Microbial Solutions

**>\$15B**

Outsourced  
addressable market

**High-  
Single-Digit**

CRL organic  
revenue growth  
(2-Yr. Target &  
2019 Outlook)



**80**

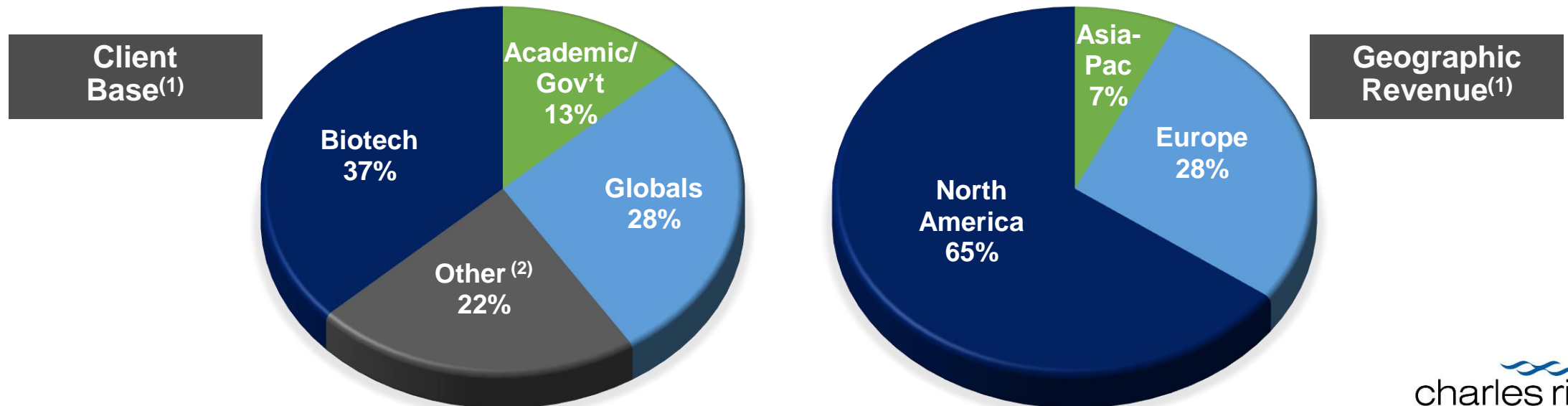
Novel  
molecules  
originated for  
clients since  
1999

**>\$2B**

Invested in  
M&A with  
**~10%**  
ROIC on M&A  
since 2015

# Charles River Overview

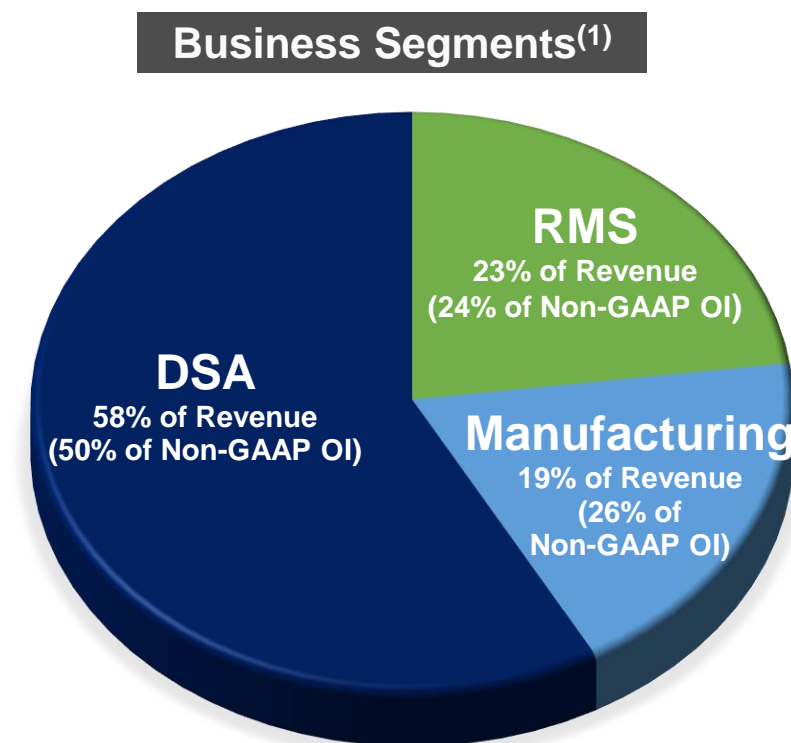
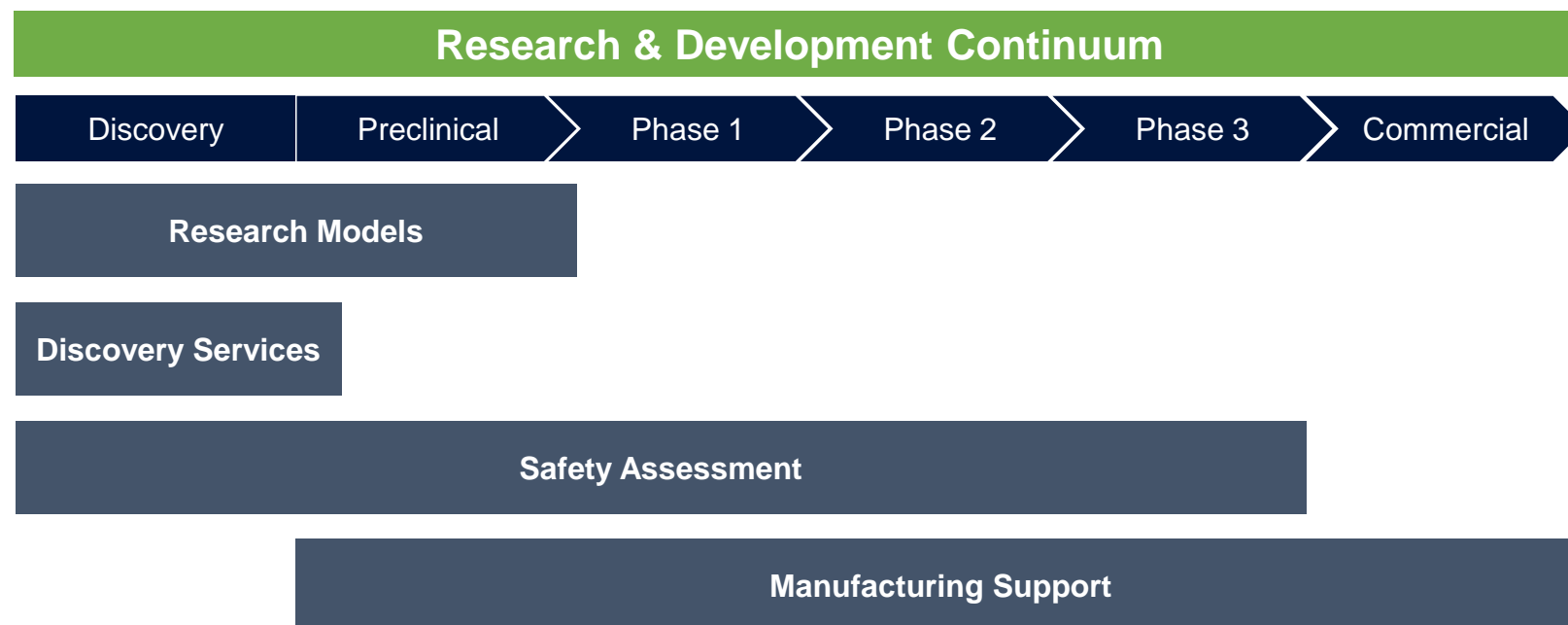
- A leading, full-service drug discovery and early-stage development company
  - Revenue of **\$2.27B** (FY 2018)
- Ability to work with clients to discover new drugs and move downstream with them throughout early-stage development
- No single commercial client accounts for **>2.5%** of total revenue
- A multinational company with **~16,500** employees worldwide
- Facilities strategically located in >20 countries, near our major client concentrations



(1) Based on CRL's FY 2018 revenue.

(2) "Other" includes agricultural & industrial chemical, CRO, animal health, life science, CMO, consumer product, and medical device companies.

# Our Unique Role in Drug Research



**Only CRO with an integrated portfolio that spans the drug research process from target discovery through preclinical development**





# Research Models and Services Business Drivers

## Research Models and Services (RMS):

23% of Revenue <sup>(1)</sup>

24% of Non-GAAP Operating Income <sup>(1)</sup>

- Increased demand in **China** for models and services
  - RMS China slightly less than 10% of RMS revenue
- Demand for **RM Services** to support use of models in research
- **DSA** segment is **RMS's largest client** by a wide margin
  - ~5% of global RM unit volume
- **Price** and **mix** offsetting lower demand for research models in mature markets outside of China
- Use of **technology** to drive **efficiency**

(1) Based on CRL's FY 2018 results. See [ir.criver.com](http://ir.criver.com) for reconciliations of GAAP to Non-GAAP results.

# Discovery and Safety Assessment Business Drivers

## Discovery and Safety Assessment (DSA):

58% of Revenue <sup>(1)</sup>

50% of Non-GAAP Operating Income <sup>(1)</sup>

- Robust demand as biopharma clients **augment discovery and safety assessment capabilities**
  - Biotech leveraging CRO expertise to drive **innovation**, instead of building in-house capabilities
  - Large biopharma utilizing CROs like CRL, in place of maintaining internal resources
    - Discovery outsourcing penetration: **~25%**
    - SA outsourcing penetration: **55% or greater**
- CRL **expanding therapeutic area focus** around significant areas of research investment
- Importance of **global network** for clients working in multiple regions
- **~20%** of DSA clients utilize both Discovery & SA capabilities with **significant opportunity** to increase client overlap







# Manufacturing Support Business Drivers

**Manufacturing Support:**  
**19% of Revenue <sup>(1)</sup>**  
**26% of Non-GAAP Operating Income <sup>(1)</sup>**

## ➤ **Microbial Solutions**

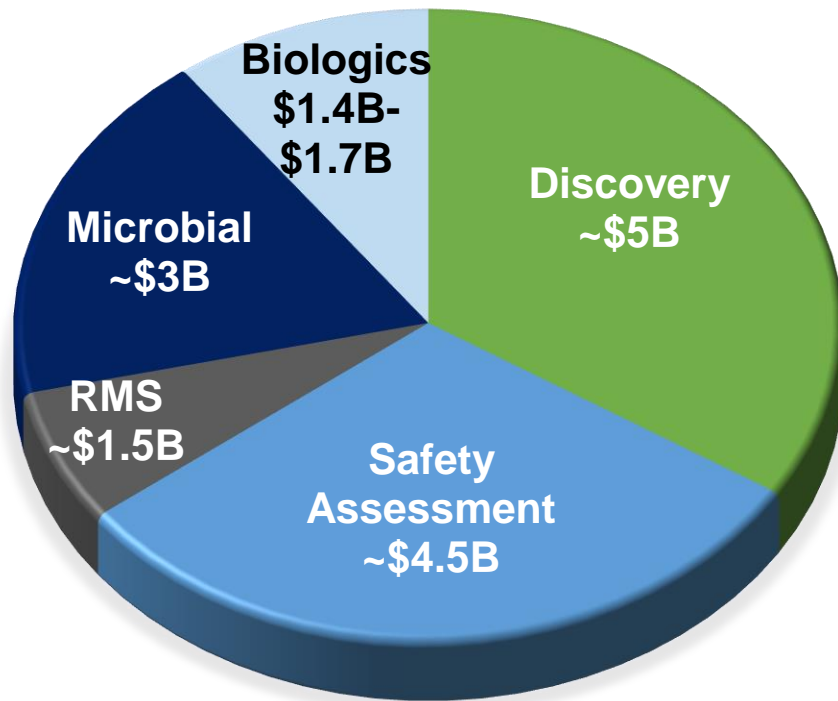
- Increased demand for **rapid testing** for both microbial detection and identification
- Continuing to drive growth in both sterile biopharma market and non-sterile markets

## ➤ **Biologics**

- Increased number of **biologics** in development
  - Rapid growth of **cell and gene therapies**
- Increased demand for outsourced services

(1) Based on CRL's FY 2018 results. See [ir.criver.com](http://ir.criver.com) for reconciliations of GAAP to Non-GAAP results.

# Sustaining Our Early-Stage Market Leadership



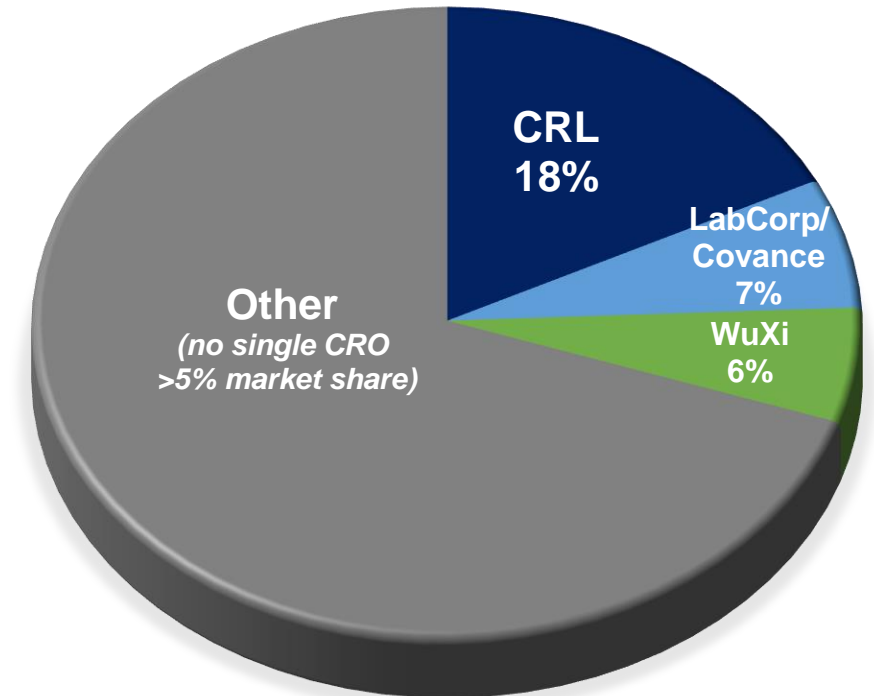
**>\$15B**

CRL addressable,  
outsourced market

**Mid- to high-single-  
digit market growth**

**#1**

market position for early-  
stage research and  
manufacturing support  
solutions



**CRL has an unmatched portfolio with a significant runway for growth**

# Biotech Innovation Driving Robust Funding Environment

- Multiple sources of biotech funding provide balanced access to capital
  - Biotechs estimated to have **at least 3 years<sup>(1)</sup> of cash** on hand today due to broad-based investment in the sector
- Biotech continues to benefit from a **robust funding** environment from **capital markets/IPOs** and **VCs**
  - 1H19 biotech funding remained on pace with record levels achieved over the last 4 years
- Biotech industry has become the **innovation engine** for large biopharma
  - Large biopharma partnering has funded many of the virtual, small, and mid-size biotech companies

## Biotech Funding (Capital Markets/VCs)

**~\$25B**  
2005-09 (avg.)

**~\$80B**  
2014-18 (avg.)

**~\$40B**  
1H19 Actual

Source: Wall Street research, BioWorld.

## Companies with Active Biopharma R&D Pipelines

**~2,000**  
2008

**~4,300**  
2019

Source: PharmaProjects/PAREXEL R&D Sourcebook.

**Biotechs have limited to no internal infrastructure; Rely on outsourcing to early-stage CROs like CRL as flexible and efficient R&D partners**



# Biopharma R&D Fundamentals Remain Strong

- Biopharma R&D investments continue to **deliver innovative new therapies**
  - FDA drug approvals and preclinical pipelines have significantly increased
    - Driven by oncology research, rare/orphan disease, and cell & gene therapies
- Large **biopharma** has **increasingly externalized R&D** for efficiency, productivity, and speed to market
- Large biopharma **focusing less** on **who discovers the molecule** and more on whether the molecule addresses a significant medical need
  - Sourcing molecules from biotech, academia/NGOs, and early discovery CROs
  - More than half of all large biopharma pipelines are externally sourced

Average FDA Drug Approvals Per Year

22

2005-09 (avg.)

40

2014-18 (avg.)

25

YTD Aug. 2019

Source: FDA.gov, industry reports.

Preclinical Compounds in the Pipeline

~5,000  
2009

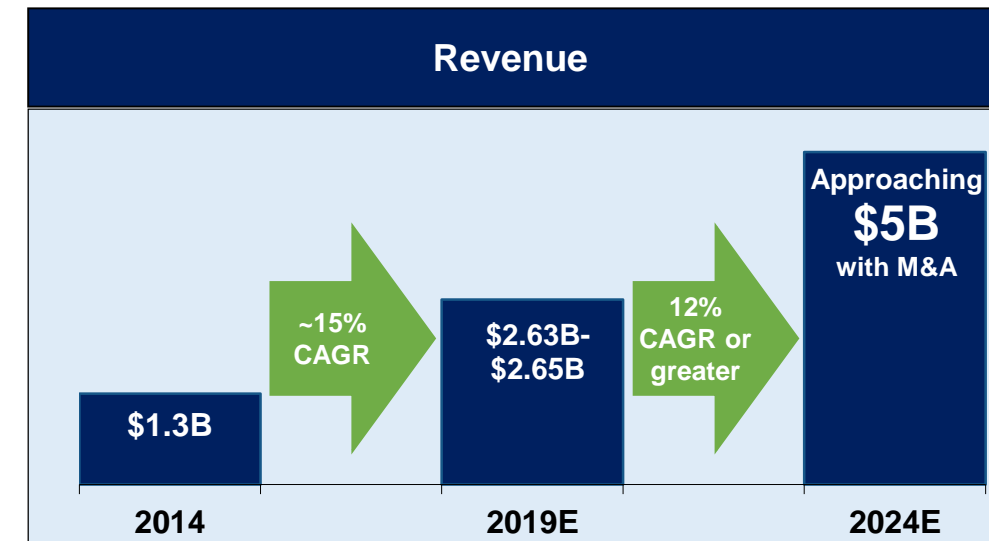
~8,500  
2019

Source: Citeline/PharmaProjects.

Large biopharma continues to reduce internal capabilities and increase reliance on outsourcing to CROs like CRL

# Robust Revenue & Earnings Growth Potential

- Intend to **nearly double revenue and non-GAAP earnings per share** over the next 5 years
  - **High-single-digit** organic revenue growth
  - **Strategic M&A** to continue to strengthen our portfolio and augment organic growth
    - Anticipate adding **at least ~\$1B in annual revenue** through strategic M&A over the next 5 years
      - Slightly greater than revenue contribution over the last 5 years
  - Non-GAAP earnings per share growth **at least in the low-double digits** over the longer term
- Committed to **significant operating margin expansion** over the next 2 years



# Strategic Plan Targets: 2-Year Goals

	2-Year Targets	
	Organic Revenue Growth	Non-GAAP Operating Margin
<b>RMS</b>	Low- to mid-single digits	Above 25%
<b>DSA</b>	High-single digits	Mid-20% range
<b>Manufacturing</b>	Low-double digits	Mid-30% range
<b>Consolidated</b>	High-single digits	20%
<b>Consolidated with acquisitions</b>	At least low-double digits	20%

**Goal to achieve 20% operating margin in FY 2021**

# Strategic Imperatives

1. Strengthen Portfolio
2. Drive Efficiency
3. Enhance Responsiveness
4. Champion Technology
5. Sustain Culture



**Maintain and enhance our early-stage market leadership  
and achieve our long-term financial targets**

# Strategic Imperatives

## 1. Strengthen Portfolio

- **Innovate scientifically** to find, assess, validate and access new capabilities and technologies
- Stay abreast of **emerging therapies** and **new modalities** to continue to address clients' evolving scientific needs
  - Leverage portfolio to address shift towards novel biologics, including **cell & gene therapy**, RNA, and antibodies
- Invest in areas with greatest potential for growth through **M&A**, collaboration via **strategic alliances**, and internal investment
  - Licensing and partnership arrangements beneficial in this environment of rapidly evolving technologies
    - **Large molecule discovery** and **AI/artificial intelligence**





# Strategic M&A Remains Top Priority

Acquisitions	Strategic Rationale
<b>WIL Research</b> April 2016	➤ Expanded global footprint in <b>safety assessment</b> and exposure to biotech
<b>Agilux Laboratories</b> September 2016	➤ Established a more comprehensive suite of <b>integrated bioanalytical, DMPK, and pharmacology services</b>
<b>Brains On-Line</b> August 2017	➤ Established CRL as the premier single-source provider for a broad portfolio of <b>CNS discovery services</b>
<b>KWS BioTest</b> January 2018	➤ Established CRL as a premier source for <b>immuno-oncology discovery services</b>
<b>MPI Research</b> April 2018	➤ Enhanced our position as <b>the premier, global, early-stage CRO</b> and provided <b>needed capacity</b> to meet current and future demand
<b>Citoxlab</b> April 2019	➤ Further solidifies <b>CRL's leading, global DSA market position</b> and enhances presence in Europe

- **Disciplined M&A** remains top priority of our long-term growth strategy
- Invested **>\$2B** in 13 strategic acquisitions since 2015
  - **~One-third** of 2019E revenue generated from these acquisitions<sup>(1)</sup>
- Managing acquisition and integration process to **achieve expected returns**
  - Generated **~10% return (ROIC)** on acquisitions since 2015<sup>(2)</sup>

See [ir.criver.com](http://ir.criver.com) for reconciliations of GAAP to Non-GAAP results.

(1) For acquisitions from 2015-2019.

(2) For acquisitions from 2015-2018. Updated August 2019. Excludes Citoxlab acquisition.

# Focus Areas of M&A and Partnership Strategy

## DISCOVERY & SAFETY ASSESSMENT

- Continue to strengthen and expand **therapeutic area** offering
  - i.e. precision oncology, immuno-oncology, cell & gene therapy
- Enhance **large molecule discovery** capabilities
- Partner or acquire in **emerging areas** including AI, genomics/ bioinformatics, translational models, structural biology, and discovery biomarkers
- No major gaps in SA portfolio
  - May evaluate niche SA capabilities

## RESEARCH MODELS & SERVICES

- New **technologies** to support the use of research models
- Enhance RM service capabilities
- Expand scale and service offering in **China**

## MANUFACTURING SUPPORT

- Develop or acquire **cell & gene therapy** assays and related capabilities
- Evaluate **niche capabilities** to support clients' manufacturing activities

## ADJACENT CAPABILITIES

- Strengthen **cell & gene therapy capabilities** across existing businesses and adjacencies
- Evaluate new areas of **bioanalytical** testing and lab sciences
- Investigate **CMC** and **manufacturing scale-up** capabilities

Expect the intensity of M&A activity to be slightly greater than the last 5 years

# CRL Cell & Gene Therapy Capabilities

## Research Models & Services

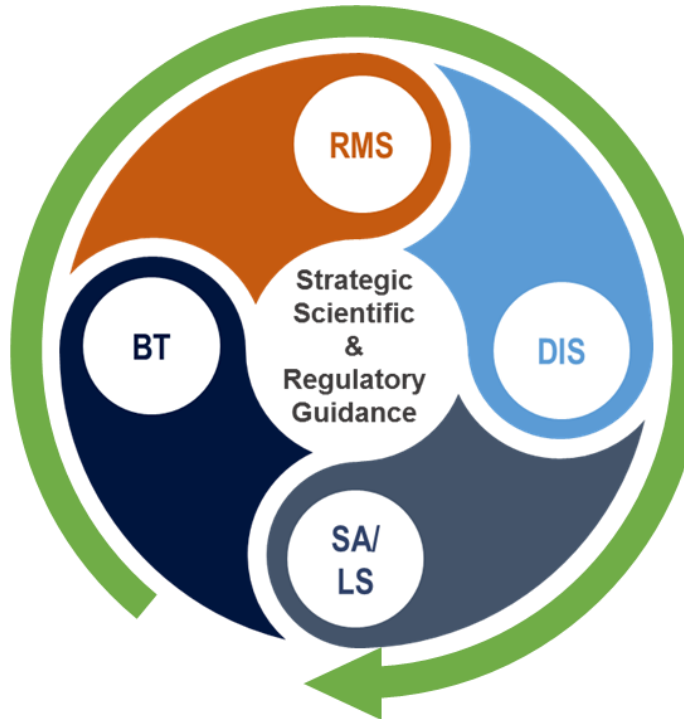
- Immunodeficient rodent models, large models, surgically altered models, and **tumor/syngeneic** models

## Biologics Testing

- **Analytical testing** services for the **viral gene therapy** or viral vector needed to perform the **efficacy/safety testing** for **C&GT therapy** programs

## Microbial Solutions

- **Advanced rapid screening technologies** to detect and identify microbial-sourced contaminants to support the manufacturing scalability of C&GT and ensuring safety



**~\$100M**  
of current CRL  
CG&T annual revenue

## Discovery

- “**Combo**” **pharmacology and safety** studies collaborating across multiple **DSA** sites
- **Range of *in vivo*** proof-of-concept models

## Safety Assessment

- **Bioanalytical, immunogenicity, and/or biodistribution assessments** that CRL can perform across **multiple SA sites**
- Potential to **pull through** from **nonclinical** to **clinical lab** work
- Ability to **standardize C&GT processes** and protocols

**Leverage synergies across CRL portfolio and invest in new capabilities to enhance scientific expertise in this emerging, high-growth sector**

# Strategic Imperatives

## 2. Drive Efficiency

- Maximize **synergies across entire portfolio** to promote best practices and add value to clients' integrated drug research programs
- Remain focused on continuous improvement to drive further **process optimization and harmonization**
  - ~\$300M of cumulative cost savings since 2015 (2015-2019E)
- Enhance **scalability of operating model** and **optimize cost structure** to drive greater productivity and economies of scale
  - Committed to **operating margin improvement** over the next 2 years



# Operating Margin Expansion by 2021

➤ Committed to **achieving non-GAAP operating margin of 20% in FY 2021**

- Expect to **anniversary YOY headwind** during 2H19 from compensation structure adjustment, Biologics capacity expansion, and large Insourcing Solutions government contract
  - Reduced 1H19 operating margin by ~50 bps
- Normalized pace of **hiring**, particularly in SA
- Initiatives to **drive operating efficiency**
- Leverage **scalable** corporate infrastructure
- Continued **price** increases across our businesses

**Achieving our two-year operating margin target of 20% is predicated on our focus on efficiency and our scalable operating model**





# Strategic Imperatives

## 3. Enhance Speed

- **Decentralize decision making** to become more agile and strike proper balance between organizational structure, processes, and culture
- Strive to be faster and more **responsive** at every step of the early-stage R&D process
  - Leverage our **scientific expertise, regulatory compliance, and extensive portfolio** to provide clients with fast, reliable scientific results on a cost-effective basis
- Develop industry's **fastest** drug development turnaround times by reducing hand-offs and further simplifying and standardizing processes
  - Targeting to reduce early-stage timelines by an **additional year**



# Strategic Imperatives

## 4. Champion Technology

- Transform industry with a **best-in-class technology** platform
  - Build a **digital enterprise**/operating model
  - Enhance **cybersecurity** to better protect client information
- Enable clients with **real-time access to scientific data** and self-service options
  - Digitize the end-to-end client experience
  - Build the right **e-commerce** solution for our unique needs
- Technology is a key to transform faster
  - Embrace **automation/robotics** and **AI/machine learning** to enhance client experience, operational effectiveness, and provide better science



# Strategic Imperatives

## 5. Sustain Culture

- Strive to be an **employer of choice** in the life sciences industry to attract, onboard, and retain the best people
- Drive **employee engagement** to enhance our culture of commitment and longevity
- Reward talent and encourage career development to further **develop broad bench strength** and deep expertise
- Embedding **sustainability** in our culture throughout CRL







# Commitment to Sustainability

## Environmental

- Seek to minimize our impact on natural resources by implementing environmentally sustainable practices
  - Established 5-year target to reduce CRL's carbon intensity by 15% between 2016-2021 (~3% per year)
    - Achieved ~15% reduction to-date (2016-2018) and intend to remain on target for 2021

## Social

- Committed to good corporate citizenship by focusing on improving the quality of people's lives from patients and clients to employees and our communities
  - One of only 230 companies named to the 2019 Bloomberg Gender Equality Index

## Governance

- Committed to operating our business with integrity and accountability
  - Aim to meet or exceed all of the corporate governance standards established by the NYSE and SEC

**Sustainability:**  
**The way in which we do  
business influences the  
results we seek to achieve**

# Our Guiding Principles

- **Extensive Scientific Expertise:** Experience with thousands of molecules across every therapeutic and disease area
  - **Nearly 2,000** scientists with advanced degrees (D.V.M., Ph.D., D.A.B.T.)
- **Our People:** Strategic hiring and building broad bench strength
  - Employee base has **doubled** since 2014 (2014-2019)
- **Superior Client Service:** A **seamless, customized experience** will be critical to ensuring that every client feels like our only client
  - Promote **strategic relationships** and partnering across our broad portfolio to support clients' critical go/no-go decisions
- **Broad Portfolio:** Adding new products and services and acquiring assets to enhance our ability to support clients' drug research efforts
  - No direct competitor has an early-stage portfolio as expansive
- **Building Shareholder Value:** Goal to nearly double revenue and earnings per share over next five years



Enhance our position as the leading full service, early-stage CRO  
with integrated drug discovery and early development capabilities



**Successful execution of our strategy is demonstrated by the fact that Charles River's scientists worked on 85% of all drugs approved by the FDA in 2018**



# Financial Overview

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David R. Smith  
Corporate Executive Vice President &  
Chief Financial Officer

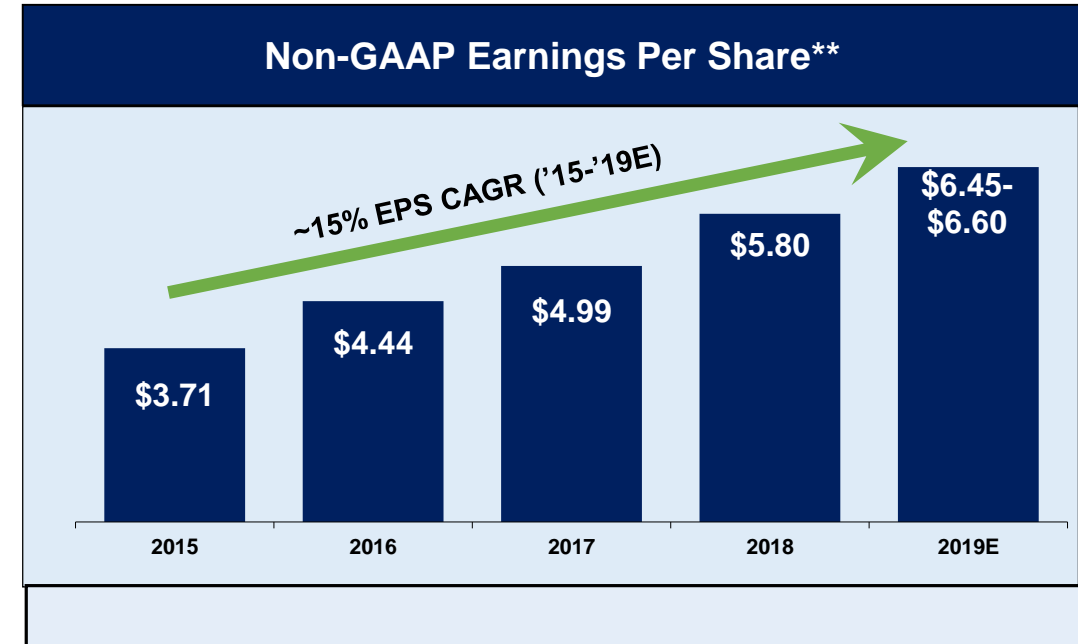
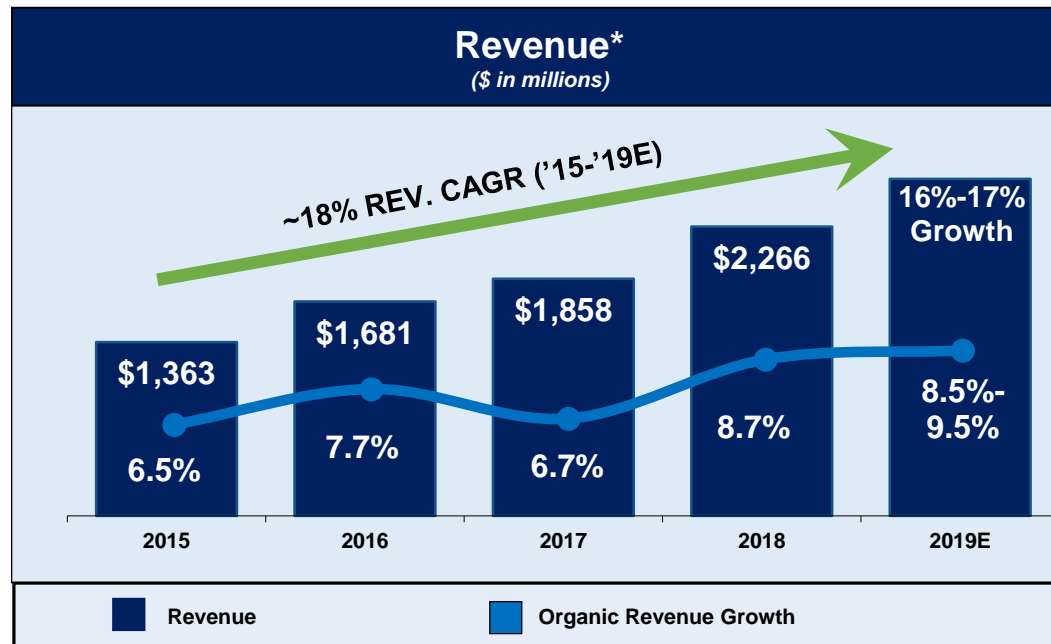
# 2019 Performance: 1H19 & FY Guidance

From Continuing Operations (\$ in millions, except per share data)	1H19	1H18	%Δ	Organic CC %Δ
RMS	\$273.2	\$264.4	3.3%	6.1%
DSA	\$759.7	\$606.4	25.3%	9.8%
Manufacturing	\$229.2	\$208.5	9.9%	13.4%
Revenue	\$1,262.1	\$1,079.3	16.9%	9.6%
GAAP OM%	11.8%	13.4%	(160) bps	
Non-GAAP OM%	17.4%	17.8%	(40) bps	
GAAP EPS	\$1.99	\$2.14	(7.0)%	
Non-GAAP EPS	\$3.03	\$2.74	10.6%	
Free Cash Flow	\$102.9	\$135.0	(23.8)%	

FY 2019 Guidance	
Reported Revenue Growth	16%-17%
Organic Revenue Growth	8.5%-9.5%
GAAP EPS	\$4.65-\$4.80
Non-GAAP EPS	\$6.45-\$6.60 <i>Low-double-digit growth</i>
Free Cash Flow	\$310-\$320M

# Strategic Plan Targets

- Targeting long-term revenue and EPS growth of:
  - **High-single-digit** organic revenue growth
    - Averaged organic revenue growth **above 7%** over the last 4 years
  - **At least low-double-digit** non-GAAP EPS growth
    - Non-GAAP EPS from 2015-2019E expected to **increase by ~15%** (CAGR)
    - Non-GAAP EPS growth ahead of prior outlook for EPS growth exceeding organic revenue growth by at least 200 bps

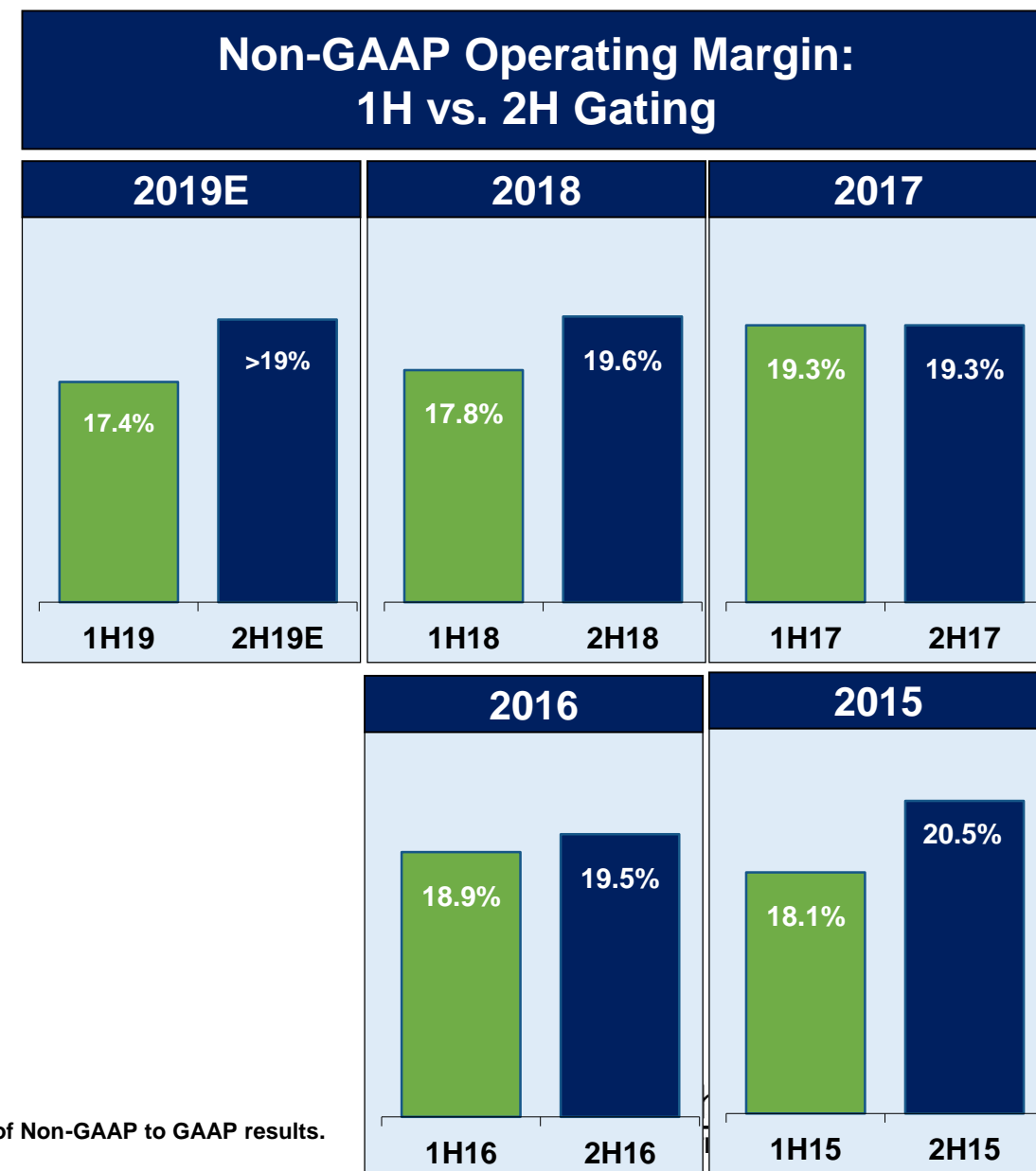


See [ir.criver.com/Financial Information](http://ir.criver.com/Financial Information) for reconciliations of Non-GAAP to GAAP results.

- \* Reported Revenue Growth (GAAP): 2015: 5.1%; 2016: 23.3%; 2017: 10.5%; 2018: 22.0%; 2019E: 16%-17%
- \*\* GAAP EPS: 2015: \$3.15; 2016: \$3.22; 2017: \$2.54; 2018: \$4.59; 2019E: \$4.65-\$4.80

# Operating Margin Expansion

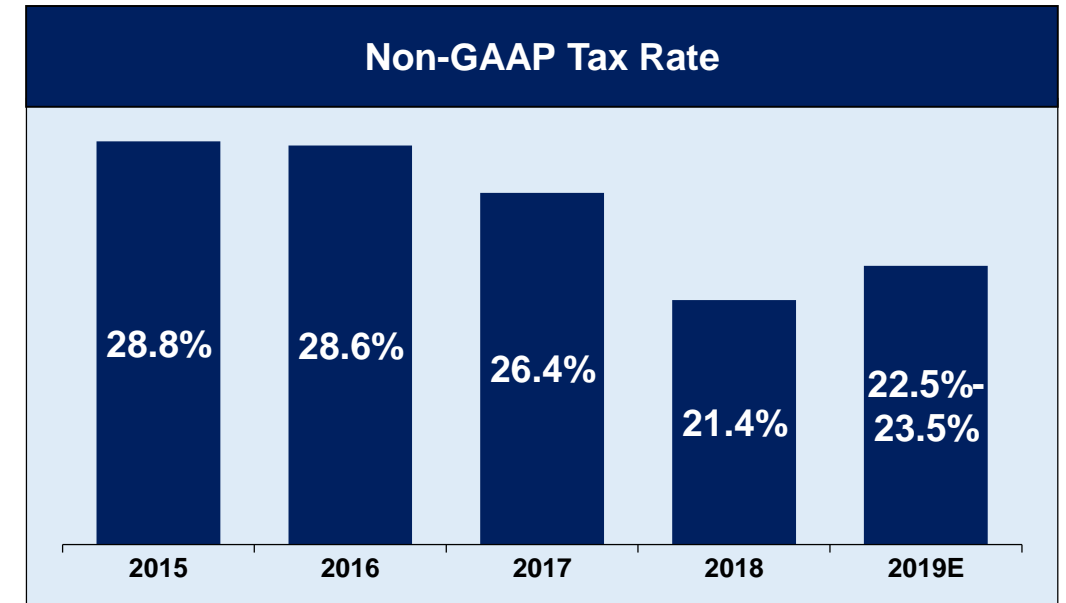
- Committed to achieve **non-GAAP operating margin target of 20% in FY 2021**
  - 2H19 anniversary of headwinds from compensation structure adjustment, Biologics capacity expansion, and large IS contract
  - Generate **greater operating leverage** from higher sales volume, pricing, and efficiency
  - Leverage unallocated **corporate** costs
    - Target ~**5%** of total revenue
- Historical trends demonstrate that our 2H non-GAAP operating margin has been notably higher in recent years when compared to 1H levels
  - Factors to 2H improvement include:
    - Higher Q1 fringe costs
    - Q1 seasonality in Biologics business
    - Synergies from acquisitions completed in 1H start to ramp up during 2H
    - Other discrete margin factors (i.e. study mix, etc.)





# Tax Rate Outlook

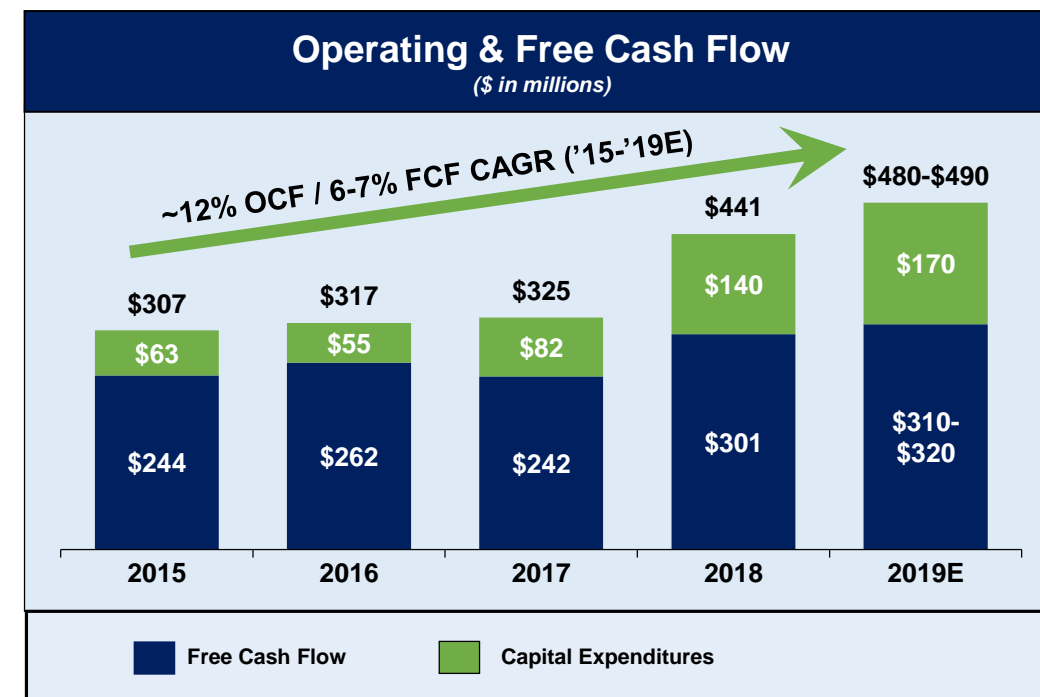
- Non-GAAP tax rate movements over last 5 years driven primarily by:
  - 2017 YOY Decrease: Excess tax benefit from stock compensation (FASB rule ASU 2016-09)
  - 2018 YOY Decrease: U.S. tax reform; operational and tax planning initiatives; discrete tax benefits
  - 2019E YOY Increase: R&D tax credits offset by reduction of prior-year discrete tax benefits
- Long-term tax rate guidance is modestly below prior outlook of mid-20% range due to R&D tax credits associated with Citoxlab acquisition



**Believe non-GAAP tax rate in the low- to mid-20% range is sustainable going forward, assuming current global tax legislation**

# Strong Cash Flow Generation

- **Low-double-digit operating cash flow growth** over last 5 years
  - Reflects strong underlying cash flow generation of our businesses
- Long-term revenue growth and operating margin expansion expected to continue to drive strong cash flow generation
- **Capital expenditures** have increased in recent years, which has restricted free cash flow growth
  - Disciplined, growth-related investments required to accommodate robust client demand
  - Capital requirements of recent acquisitions
- Going forward, expect capex to remain **under 7% of total revenue**



# Optimizing Our Capital Structure

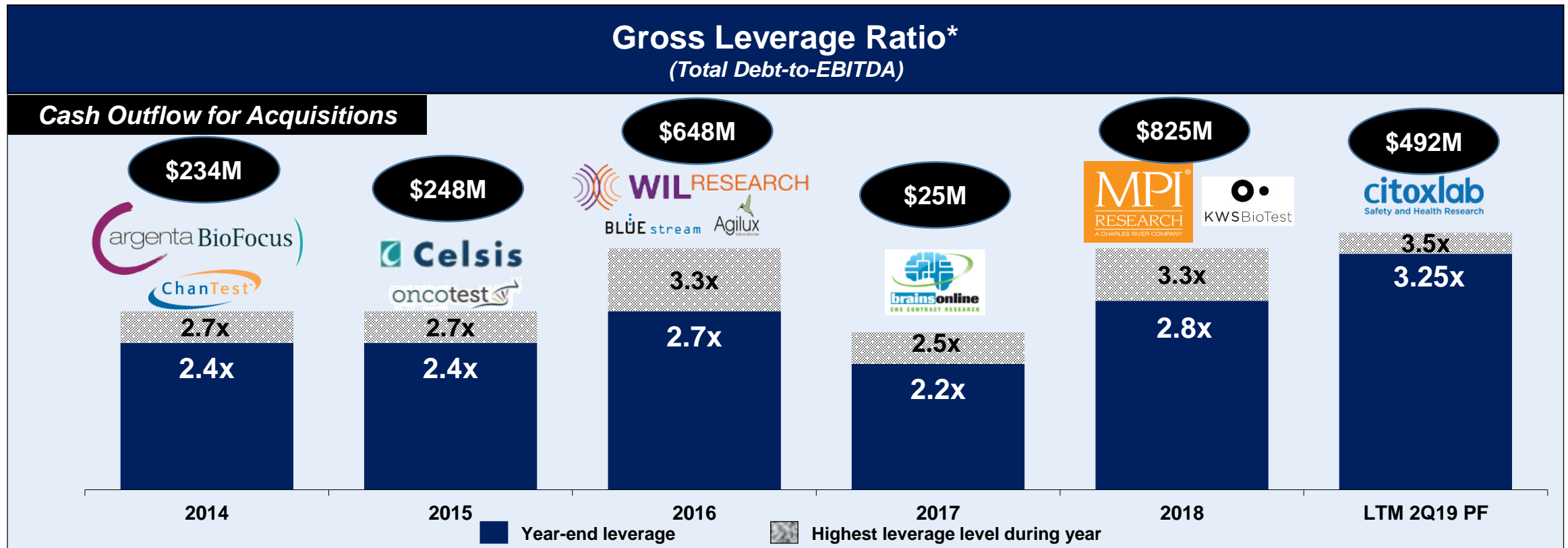
- **Refinanced** debt structure last year:
  - Amended credit facility
    - Upsized senior secured revolving credit facility to \$1.55B (from \$1.0B)
    - Upsized senior secured term loan A to \$750M (from \$650M)
  - Issued new \$500M, 5.5% senior unsecured notes
    - Fixed interest rate on a portion of our capital structure
- Would evaluate issuing **additional fixed-rate debt** given favorable interest rate environment
  - Realign debt structure to support future M&A

CRL Capitalization (\$ in MM)	<u>6/29/19</u>
5.5% Senior notes	\$500
Term loan	713
Revolving credit facility	839
Finance leases & other	23
<b>Total debt (<i>short &amp; long-term</i>)</b>	<b>\$2,074</b>
Additional borrowing capacity	\$706

**Optimizing our capital structure enables greater access to additional borrowing capacity to support strategic initiatives, including M&A strategy**

# Track Record of Debt Repayment

- Targeted leverage ratio (gross) **below 3x**
  - Increase debt level above 3x for certain strategic opportunities, primarily M&A
- Capital priorities in 2019 continue to be focused on **strategic M&A**
  - Absent any acquisitions, goal will be to drive the gross leverage ratio below 3x



See [ir.criver.com/Financial Information](http://ir.criver.com/Financial Information) for reconciliations of Non-GAAP to GAAP results.

\* Leverage ratio calculated pursuant to the covenants of our credit agreement. Solid blue bars represent year-end leverage ratio. Shaded areas represent highest leverage ratio for the year, including pro forma leverage ratio immediately following an acquisition.

# Strategic M&A Remains Top Priority

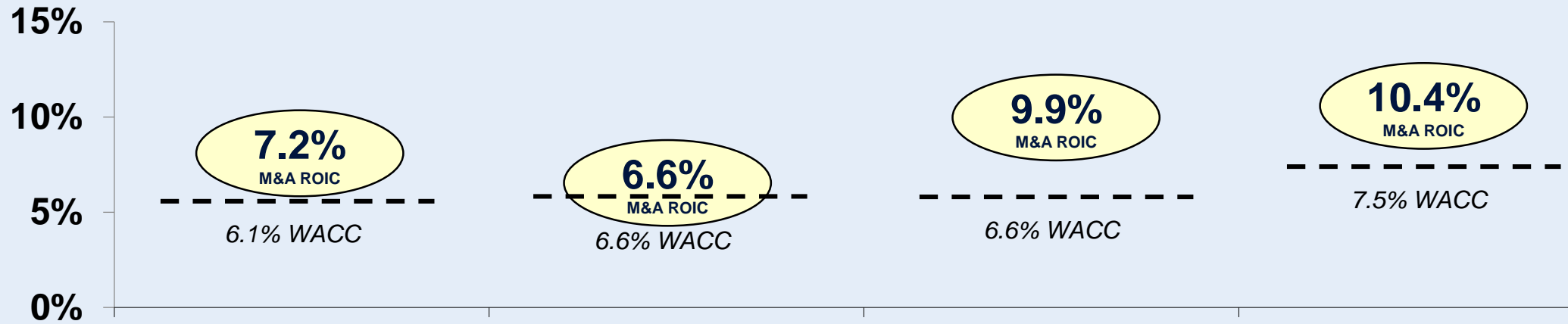
- **Disciplined M&A** remains top priority of our long-term strategy
  - Measure all M&A against investment criteria of:
    - Neutral to accretive on a non-GAAP basis in Year 1
    - ROIC meets or exceeds cost of capital by Year 3 or Year 4
- Invested **>\$2B** in 13 strategic acquisitions since 2015
  - **~One-third** of 2019E revenue expected to be generated from these acquisitions
  - M&A strategy has met or exceeded our investment criteria/hurdle rates
- Long-term strategic plan assumes reinvestment of significant portion of free cash flow in M&A activities
  - Supplements organic growth
  - **Enhances shareholder value**



# Achieving Expected Returns on M&A Investments

## Historical M&A Performance for Return on Invested Capital (ROIC) by Year

(Acquisitions from the preceding 4 years that were not acquired within the current year)



2016

2017

2018

2019E

2012 Acquisitions



2013 Acquisitions



2014 Acquisitions



2015 Acquisitions



2016 Acquisitions



2017 Acquisitions



2018 Acquisitions



# Venture Capital Investment Strategy

- Primary purpose for partnering with VC firms is to be a preferred CRO to a large group of emerging biotech companies
- CRL's venture capital (VC) investments have created a two-pronged income stream
  - Example of an innovative strategy to effectively deploy capital to generate revenue and create value
- VC relationships have resulted in **27%**<sup>(1)</sup> average annual return
- Historically, VC strategy has been a self-funding initiative (capital funded approximates realized/unrealized gains recorded)
  - Also provides incremental opportunities to win work with VC portfolio companies that we may not have been able to attract otherwise

## Client Relationships

- LTM June 2019 revenue contribution was **~\$85M** from portfolio companies of VC funds in which we have invested

## Investment Gains

- Investment returns have been attractive, but are a secondary element of these relationships
  - Capital commitments (since inception):
    - \$75M funded/\$129M total commitment
  - Gains/distributions (since inception; pre-tax):
    - \$76M in realized/unrealized gains, including \$52M in realized cash/equity distributions
- **14%** average annual investment return on VC investments alone

# Financial Target Summary

	2-Year Target (Non-GAAP)	5-Year Average or CAGR (2015-2019E)
Revenue growth	High-single-digit organic growth	7.7% organic growth (average) 18% reported growth CAGR
EPS growth	At least low-double-digit growth	15% CAGR Nearly 2x organic revenue growth
Operating margin	20% in FY 2021	19.1% (average)
Unallocated corporate	~5% of total revenue	6.8% of revenue (average)
Leverage ratio (gross)	Below 3x after acquisitions	Below 3x at year-end in each of the last 5 years
Tax rate	Low- to mid-20% range	25.6% (average)
Capital expenditures	Under 7% of revenue	5.0% of revenue (average)
ROIC from M&A	ROIC meets or exceeds WACC in Year 3 or 4	10.4% in 2019E for acquisitions since 2H15 vs. 7.5% WACC



# Global Discovery & Safety Assessment

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Birgit Girshick  
Corporate Executive Vice President,  
Discovery & Safety Assessment,  
Biologics Testing Solutions,  
and Avian Vaccine Services

# The Leading, Non-Clinical Contract Research Organization



**#1**

Market position  
for early-stage  
CROs

**>1,500**

Ph.D. or  
equivalent  
scientists at CRL



**~30%**

share of  
outsourced  
Safety  
Assessment  
market

**>350**

Patents worked  
on by  
DSA segment



**High-  
Single-  
Digit**

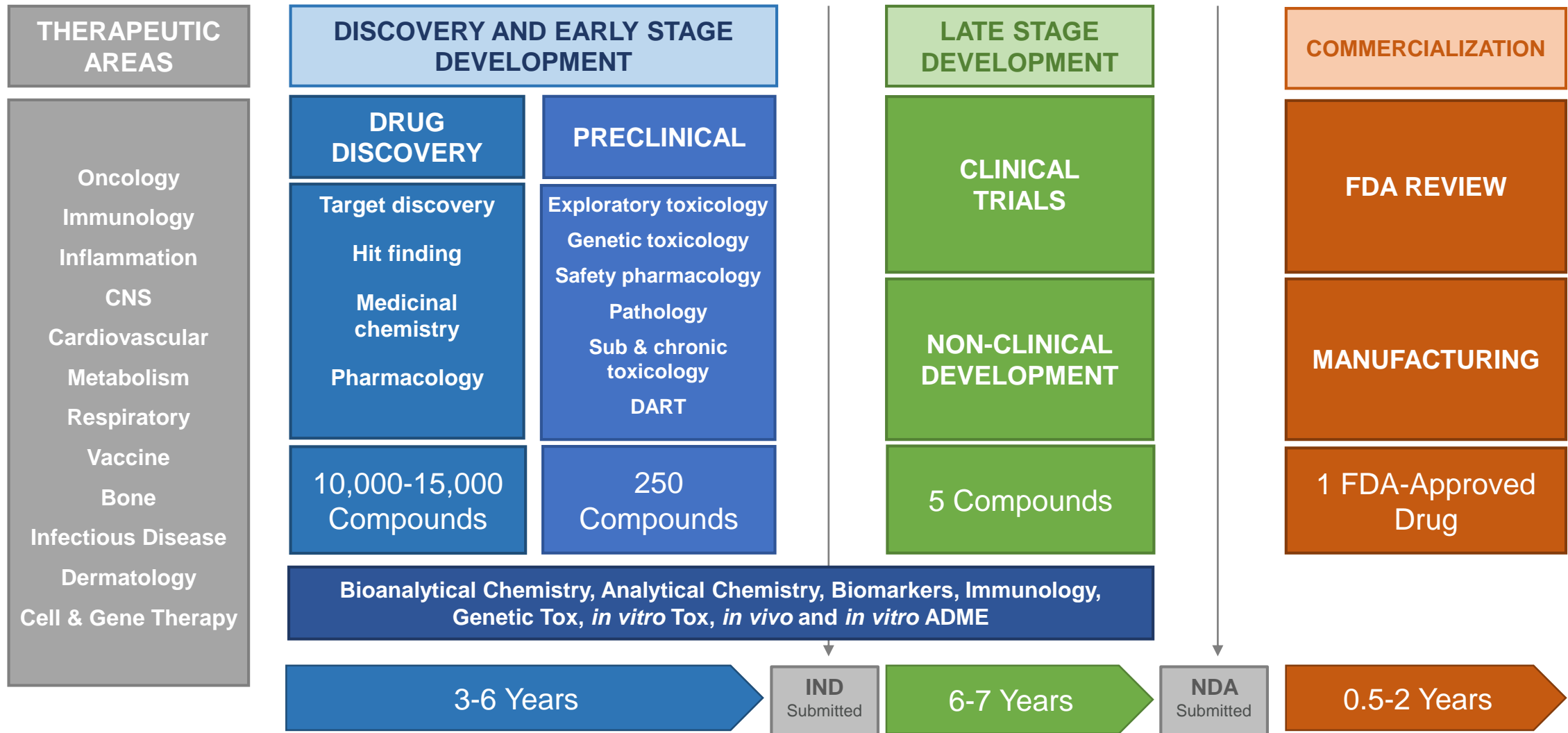
DSA organic  
revenue  
growth  
(5-Yr Target &  
2019 Outlook)

**80**

Novel  
molecules  
originated for  
clients since  
1999

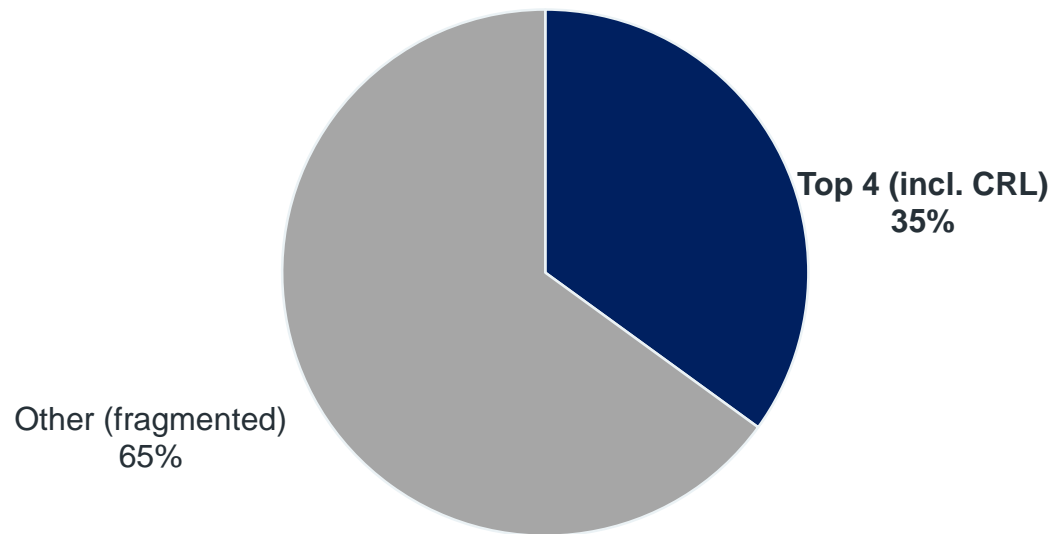


# Drug Development Process



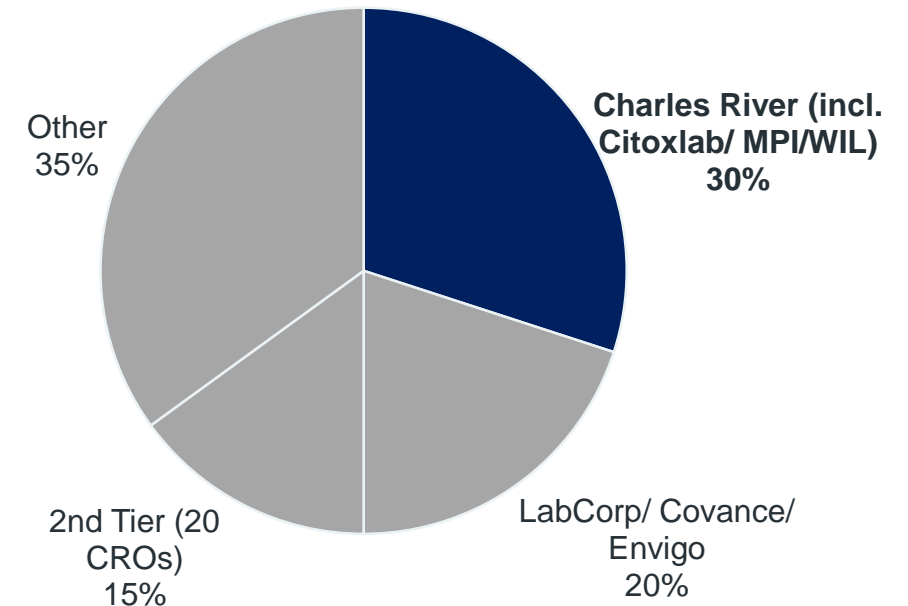
# Early-Stage Market Overview

## Global Discovery Outsourced Spend by Service Area



**~\$5B Outsourced Market**  
**Low-Double-Digit Growth**  
**~25% Outsourcing Penetration**

## Outsourced Safety Assessment Market



**~\$4.5B Outsourced Market**  
**Mid- to high-Single-Digit Growth**  
**55%+ Outsourcing Penetration**

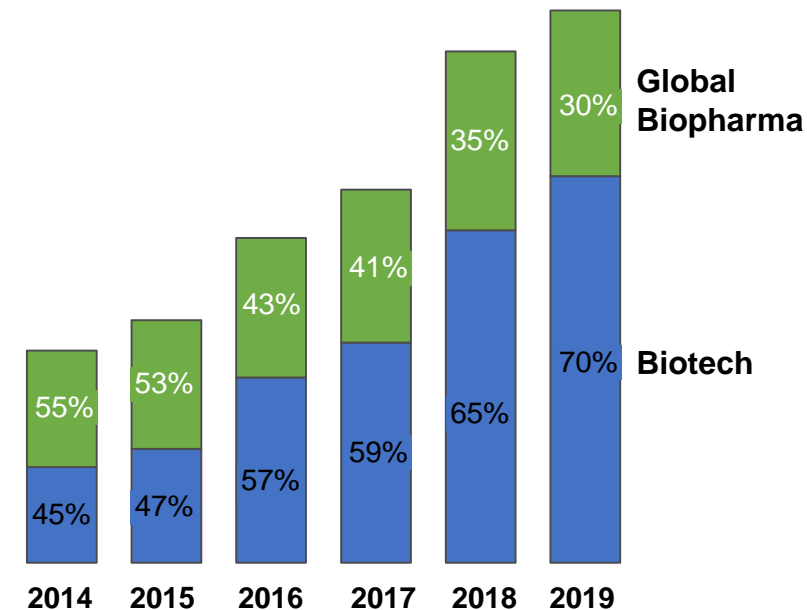
# Early-Stage Market Overview, cont.

- The non-clinical CRO sector represents ~two-thirds, or nearly **\$10B**, of CRL's total addressable market opportunity
  - Expected to grow in the **high-single digits annually** over the next 5 years
- Drivers to future industry growth:
  - Biotech has become the **innovation engine** for the biopharma industry
    - Biotech funding remains robust in 2019 and consistent with the last four years
    - Biotechs expected to continue to be the primary driver of DSA growth with the discovery of novel therapeutics
  - **Outsourcing penetration** is also expected to continue to increase over the next 5 years
    - Global biopharmas seek to reduce costs and improve efficiency
    - SA outsourcing expected to increase to **~80% or greater** over the longer term
    - Discovery outsourcing expected to increase to **~50%** over the longer term

# CRL is a Biotech-Centric Organization

- Biotech continues to lead in the discovery of new therapies
- Biotech clients value:
  - Strong **science**, **agility**, and **speed**
  - **Custom** approach to projects
  - Driving projects at their pace
    - Self-selecting toolkit preferred
  - **Quality** trumps all for biology, pharmacology, and safety
    - Chemistry is commoditized
  - Expect CRO partners to know them and the style in which they like to work and communicate

**DSA Revenue Mix by Biopharma Client Segment (2014-2019)**



Note: Chart does not include other non-biopharma DSA client segments, such as agchem companies.

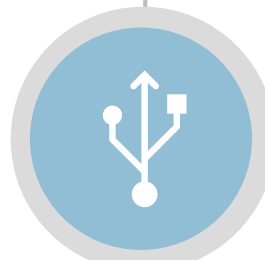
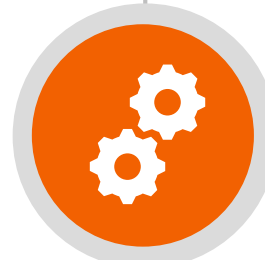
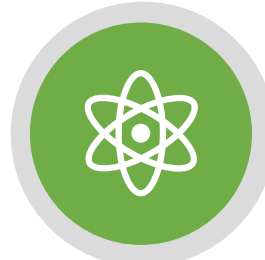
# DSA Vision Drives Innovation and Growth

## Scientific Expertise

**Accelerate pathways to go/no-go decisions** by investing organically and through partnerships and M&A

## Digital Strategy

**Best-in-class outsourcing experience** through **digitalization** of data, enhanced data analytics, and providing **self-service** options



## Operational Excellence

**Revolutionize the industry with a seamless and flexible end-to-end, early-stage drug development platform** through collaboration, harmonization, and process improvement

## Our People

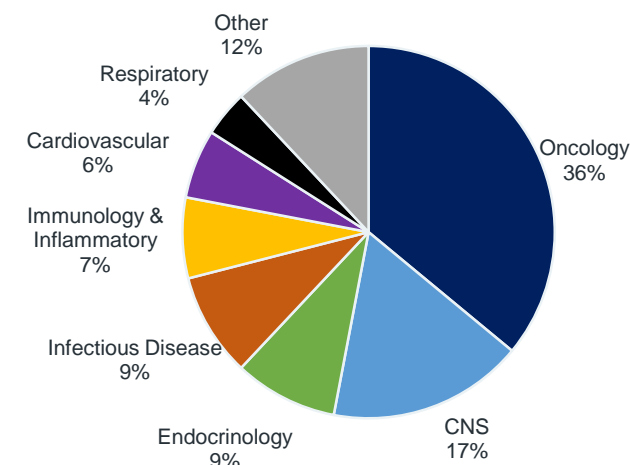
**Engage, hire, and retain the best people** by developing, appreciating, and empowering our people and allowing them to **make fast decisions**



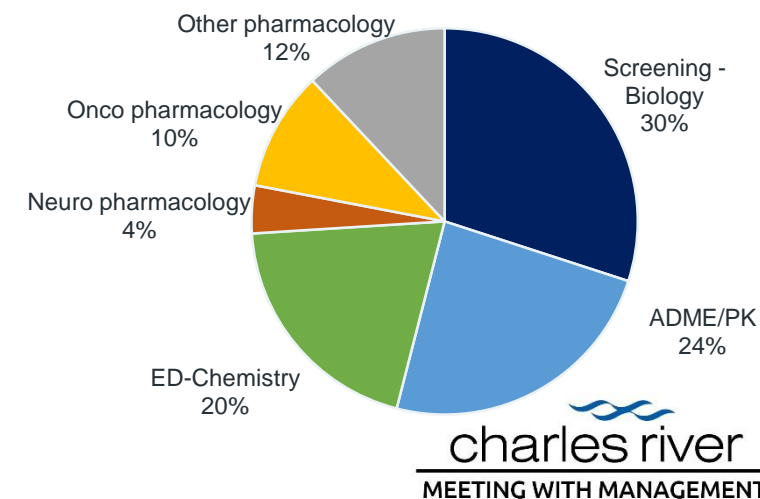
# Scientific Expertise

- Broad scientific focus with capabilities across the early-stage continuum
  - Worked on ~**85%** of the drugs approved by the FDA in 2018
  - Premier, early-stage solutions in the fastest-growing areas of drug research: oncology, CNS, immunology, cell & gene therapies, and rare disease
- Extensive specialty toxicology expertise
  - Industry-leading **developmental** and **reproductive** toxicology (DART) and **juvenile** toxicity capabilities
    - Largest global provider with **8 sites** worldwide
  - **Inhalation, infusion, ocular, bone, immunotoxicology, and phototoxicology**
- Deep drug discovery expertise
  - Extensive **medicinal chemistry** and **structural biology** expertise
  - Comprehensive **tumor** and **HTS** (high-throughput screening) libraries
  - **Pharmacology** models for all disease areas

## Drugs in Development by Therapeutic Class



## Global Discovery Outsourced Spend by Service Area





## Scientific Expertise, cont.

- Continuing to enhance and build our scientific capabilities through multiple strategies
  - **Organic investments:** screening and profiling platforms, HTMS (high-throughput mass spectrometry), and translational imaging platforms
  - **Partnerships** in innovative technologies to move with market trends and accelerate time to IND
    - Next-generation antibody platform
    - Technology platform to enhance SEND compliance
    - Artificial intelligence (AI) to expedite the discovery of novel compounds
  - **Acquisitions:** Citoxlab, MPI, KWS Biotest, Brains Online

# Digital Strategy

- Build **best-in-class** outsourcing experience through **digitalization** of data, data analytics, and self-service options
  - Scientific data is the core of our business
- Digital strategy entails:
  1. Continuous upgrades to IT security and foundational information and data management tools to support global digital strategy and data analytics
  2. Enhance tools to support the operational excellence of CRL and our clients
    - i.e. SEND compliance, digital data downloads, and other resources
  3. Migrate towards a **full digital client experience** to enable clients with real-time access to data and self-service options
    - Ranging from sales quotations to study design and monitoring to data warehousing, analytics, and visualization tools
    - Leverage enhanced data analytics and machine learning/AI through organic investments and partnerships



# Our People

- Engage, hire, and retain the best people by developing, appreciating, and empowering our people and allowing them to make fast decisions
  - Strive to be an **employer of choice**
- Focus on recruiting and retention
  - Implemented program in 2018 to increase hourly wages of employees in certain DSA businesses
  - Maintain recruiting and retention at targeted levels
  - Enhanced career path tool to encourage a culture of development







## Our People, cont.

- Enhance **onboarding** and **training** programs
  - Introduced robust technical training program in SA to increase global mobility and support the quality of our science and data
  - Developed and implemented value-driven onboarding program globally
- Our people are the key to:
  - Delivering best-in-class quality
  - Providing exceptional client service
  - Fostering stronger relationships with our clients
  - Improving organizational speed and responsiveness



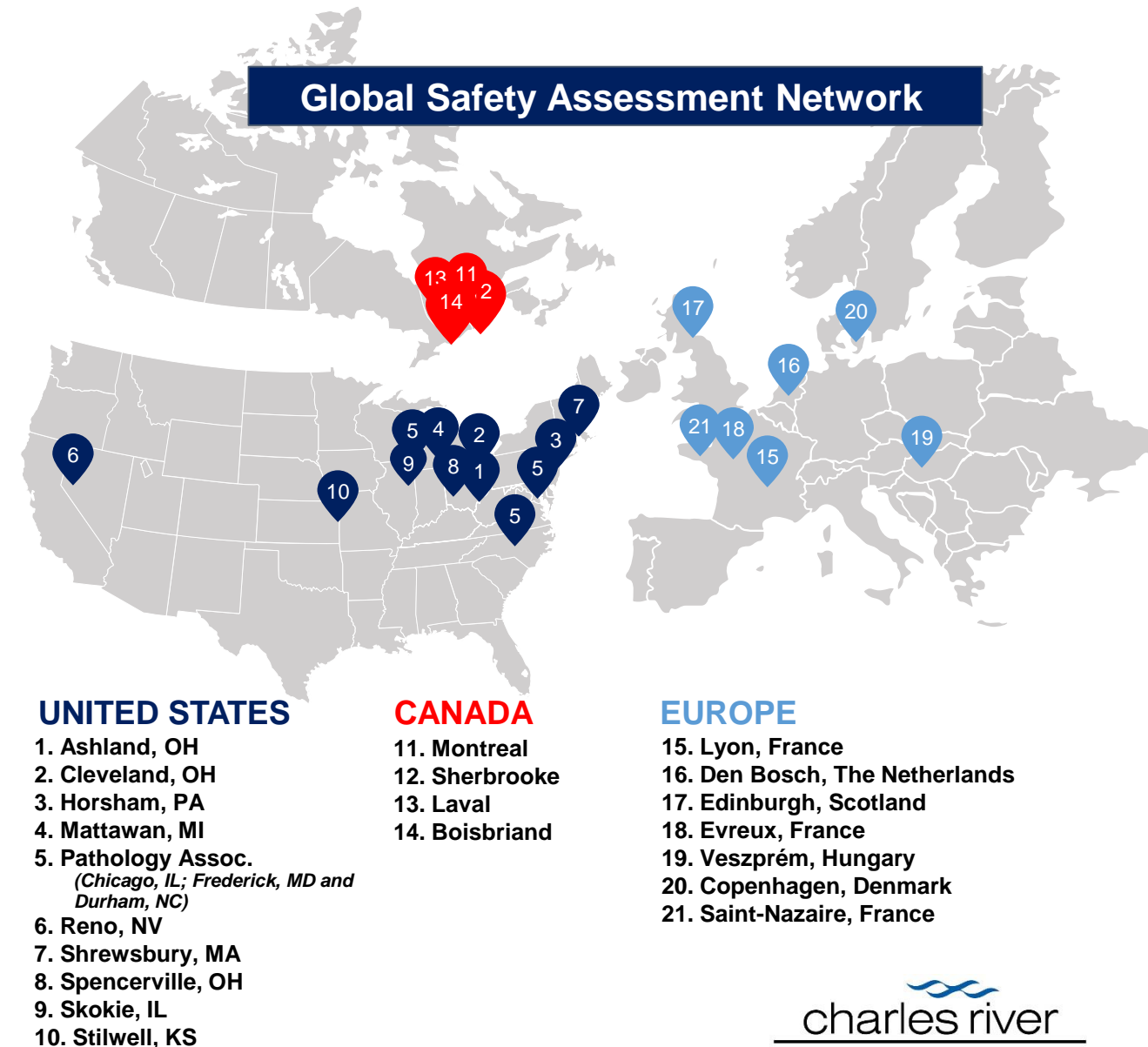


# Operational Excellence

- Provide a seamless and flexible end-to-end, early-stage drug development platform through collaboration, harmonization, and process improvement
  - Drive greater operating efficiencies and automation of processes
- Leverage our size and broad portfolio to expedite hand-offs from site to site and business to business
- Maintain and enhance industry's **fastest** early-stage drug development timelines
  - Goal to **reduce** our clients' early-stage timelines by an **additional year**

# Operational Excellence, cont.

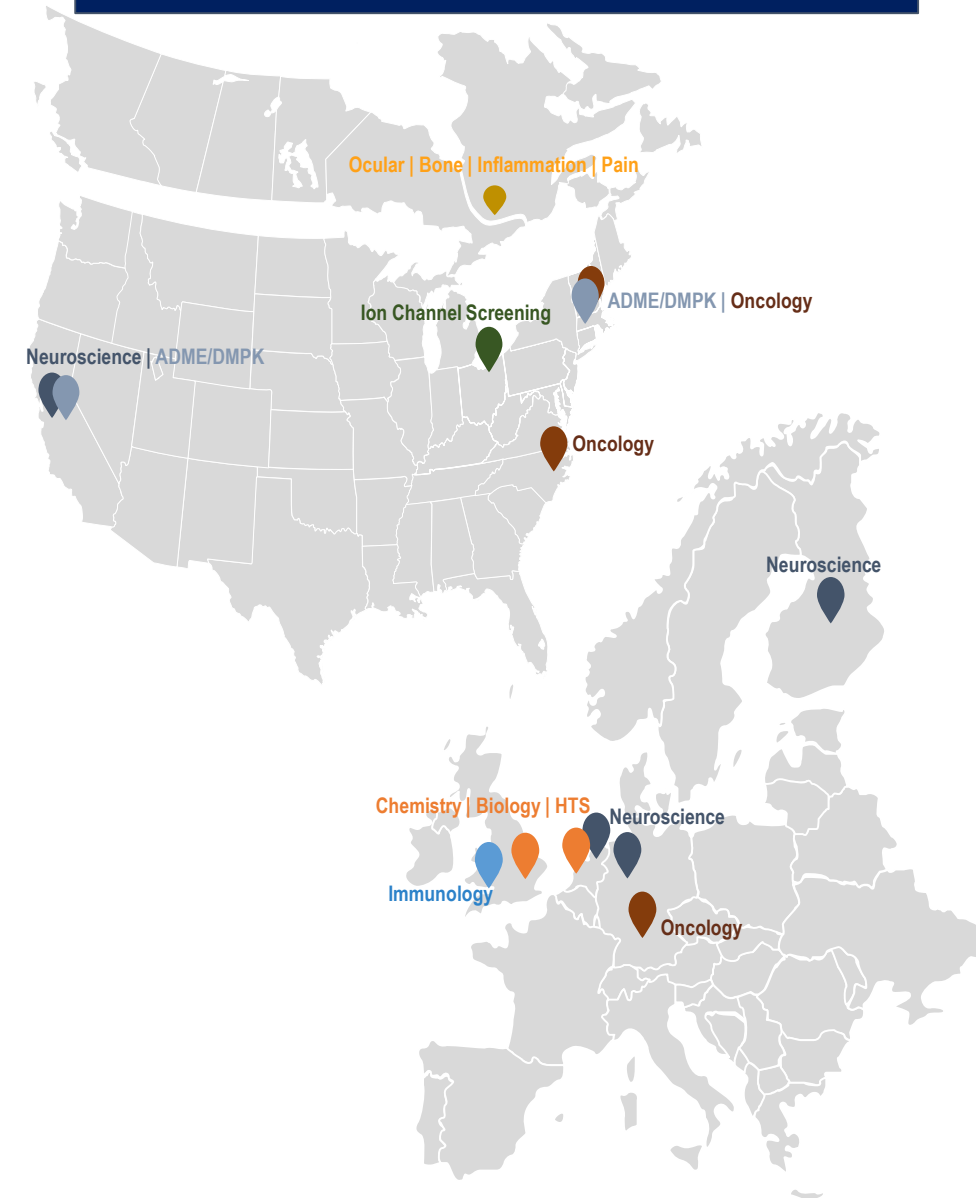
- **Global scale** and **proximity** to clients are key competitive strengths
  - Importance of our global network for clients working in multiple regions
  - **>1,800** SA study rooms including Citoxlab
- **Citoxlab** acquisition further enhanced our global SA network
  - Added capacity worldwide, particularly in Europe
- **Global network** enhances our ability to start studies on shorter timelines and promote client mobility
- Believe our SA business now has the global footprint and capabilities to fully support our clients and maintain our industry-leading position



# Operational Excellence, cont.

- **Integrated drug discovery (IDD)** programs generating greater pull-through between Discovery and SA businesses
  - Establish broader working relationships with clients earlier in the drug discovery process and leverage synergies through to SA
  - Multi-year progression for successful discovery targets to transition into IND-enabling safety studies
- Key initiatives to support DSA client pull-through:
  - Leverage cross-functional scientific teams
  - Alliance/ project management to ensure efficient hand-offs from business to business
  - Integrated scientific program management guiding clients through the drug discovery and development process
  - Empower clients with enhanced access to technology/data
  - Business-wide, centralized scheduling
- Goal to achieve **~50% client overlap** between Discovery and SA over the longer term

## Global Discovery Centers of Excellence



# DSA Drivers to Operating Margin Improvement

- DSA segment offers greatest opportunity for margin improvement in CRL portfolio
- Goal to increase DSA non-GAAP operating margin to **mid-20% range** within **two years**

## Capacity

- Leverage existing space
  - SA: No need to build greenfield SA capacity with MPI and available space at other sites
  - Discovery: Leverage expansions this year at Agilux (MA), KWS (UK), and South San Francisco

## Efficiency & Other

- Continue to implement initiatives to enhance operating efficiency and generate procurement savings
- Achieve operating margin expansion at recent acquisitions through attainment of acquisition synergies and additional productivity measures
- Labor initiatives to optimize employee utilization and reduce turnover
- Other initiatives including the strengthening of the supply chain

## Pricing

- Incremental pricing opportunities
  - Industry capacity utilization continues to improve
  - Our unique specialty capabilities generate pricing power

# DSA Strategic Imperatives



Best employee  
experience through  
hiring, training,  
engagement, and  
compensation



Best science and  
technology with the  
goal to allow faster  
go/no-go decisions

Best client  
experience through  
provision of  
excellent client  
service,  
collaboration, and  
fast data



Best processes  
enable us to  
provide a flexible  
early-stage R&D  
platform



**Charles River is the scientific partner of choice, recognized for strong science, a collaborative approach to client needs, and the fastest delivery from target identification to IND**



# Citoxlab Integration Update





# Citoxlab Acquisition Further Solidifies CRL's Scientific Capabilities and Global Scale in DSA

## STRENGTHENS SERVICE PORTFOLIO

- **GLP general & specialty toxicology**
  - Reproductive toxicology & ocular services
  - Ecotoxicology (agrochemical testing)
- Preclinical **medical device** testing
- **Non-GLP** services
  - Drug transporters & drug-to-drug interaction

## ENHANCES GLOBAL SCALE TO MEET GROWING DEMAND

- Enhances CRL's presence in **Europe**
- ~60% of Citoxlab's revenue generated in EU
- Expands DSA capacity with >700K sq. ft. across 9 operating sites in 6 countries

## EXPANDS CLIENT BASE

- Diverse client base of biopharmaceutical, agriculture & industrial chemical, and medical device companies worldwide
- Expansion of small and mid-sized **biotech client base**
  - CRL's fastest-growing market segment

## COMPELLING FINANCIAL PROFILE

- Immediately **accretive** to non-GAAP EPS
- Expected to generate **attractive financial returns** through high-single-digit revenue growth and operating margin expansion
- Further enhances CRL's long-term growth profile

# Integration Highlights

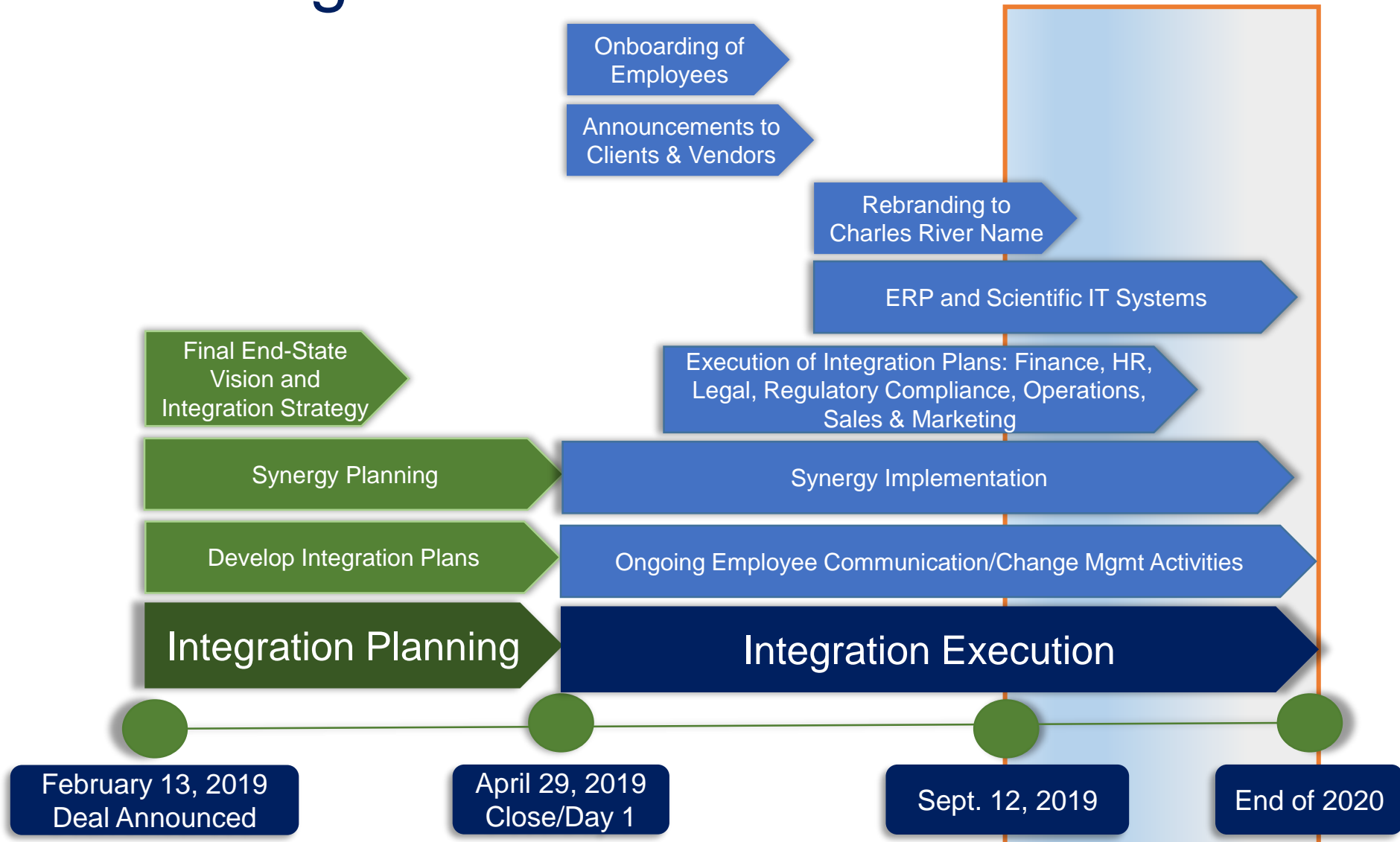
- Acquisition closed on April 29, 2019
  - Four months of CRL ownership
- **Client feedback** positive and supportive
- **Employee feedback** positive and employees excited to join CRL
- Day 1 organizational structure successfully executed
  - Sales, marketing, & client services structure solidified by Week 8
- Day 1 interim branding introduced
  - Atlanbio to CRL branding in July
  - Citoxlab to CRL branding in August
- **Rapid start to integration plan**
  - Operational and functional onboarding
  - Strong cross-site collaboration
  - Multiple operational synergies
- Maintaining momentum in legacy CRL and Citoxlab businesses



A Charles River Company



# Planned Integration Timeline



# Integration Summary

- All aspects of integration have been well executed
  - Successfully tracking to integration plan
  - **Employee onboarding** and **transition** complete
  - Rebranded to ONE Charles River
    - Exceptions: Solvo and Accellab
  - Tracking to expected **cost synergies of \$8-10M** over two years
  - Strong post-acquisition financial performance
    - Strong demand and financial results in 2Q19
- Strong business momentum maintained through integration
- All Citoxlab clients have been retained





# Building a Technology Toolkit to Support the Emerging Science Landscape

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Dr. Julie Frearson  
Corporate Vice President, Strategic Alliances

# Market Trends



## C&GT pipeline growing and with pricing main challenge

- After 20 years of R&D, first approvals of genuine gene therapies occurred last year (Luxturna for retinal dystrophy by Spark; Zolgensma for SMA by Novartis)
- Pipeline of such therapies is substantial; main challenge is minimal effective dose understanding and pricing (\$425K per eye or \$2.1M for SMA drug)
- FDA expects to approve between 10 to 20 C&GT drugs per year by 2025 based on an assessment of the current pipeline and the clinical success rates of these products



## AI having real world impact

- 96% success rate in adenoma detection via polyps by applying artificial intelligence (AI) to images from colonoscopies (typical ADR 7-53%)
- Enterprise AI deployments are beginning to reach commercial scale
- Global Enterprise AI software, hardware, and services revenue reached \$23.6B in 2018

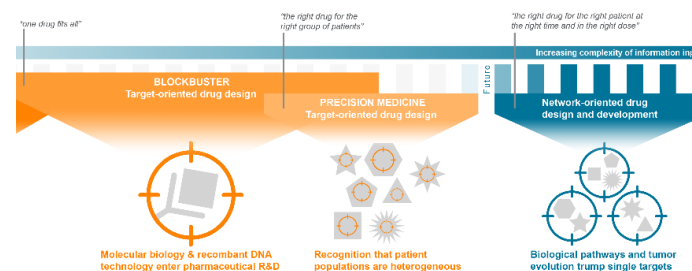


## Dementia disease: Starting all over again

- Long line of clinical trial failures in the Alzheimer's space
- From 1998 to 2017, nearly 150 failed attempts at developing Alzheimer's drugs, and 2018 marked another half-dozen or so failures
- March 2019 - Biogen Eisai failure finally closed the door on the beta amyloid hypothesis



## Gaining interest in applying precision medicine throughout DSA



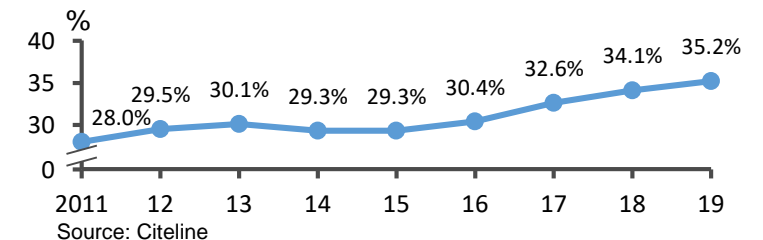
## Super-sized funding environment

- Series A and IPOs have been fewer in number, but much larger (\$80-100M Series A and \$300-600M IPOs)
- Investments happening earlier driven by confidence in C&GT and increasing number of platforms that can spread investment across multiple TAs
- Super-sized series A and IPOs correlate into biotech investing in the best teams and aiming to go to market without M&A or asset sales



## Oncology continues to dominate TAs

Percent of pipeline in development for cancer (2011-2019)

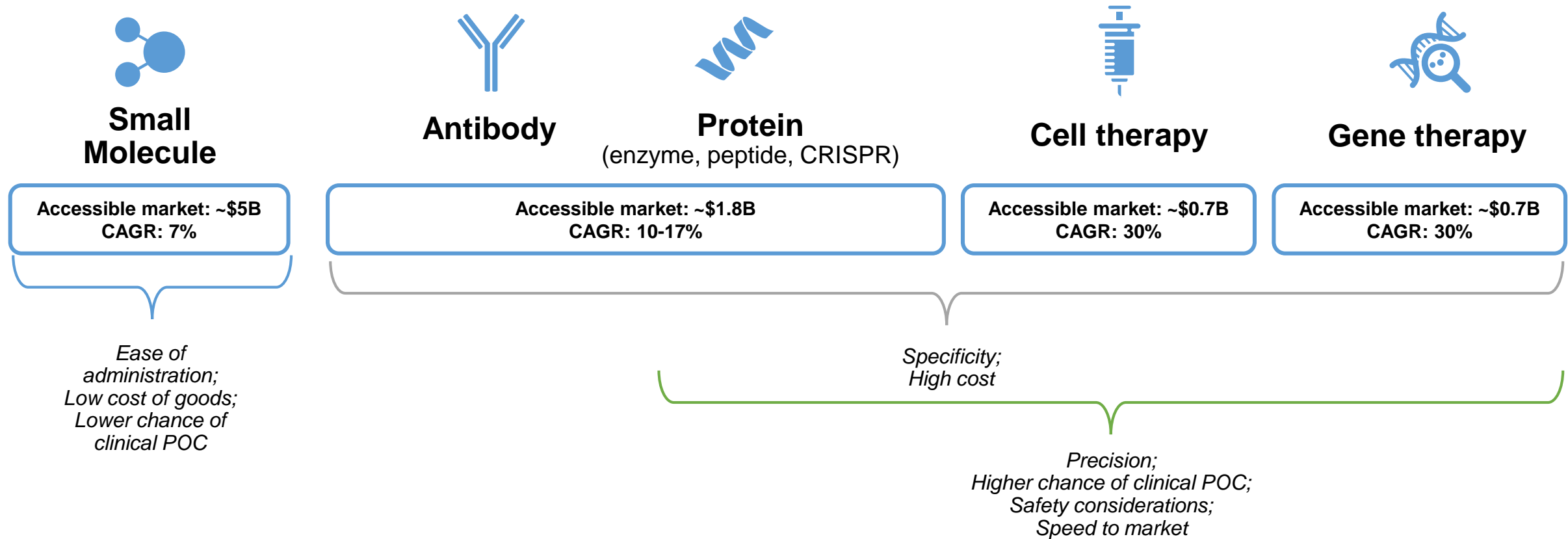


**Significant developments in R&D: Cell & Gene Therapy (C&GT) revolution, digitalization of science, and funding concentrations**

# Technology Partnerships

- Partnerships are a driving force behind our strategy and future growth
  - Risk-mitigated partnerships address strategic **portfolio gaps** and **drive revenue growth** with a lower upfront commitment from CRL
    - Supplement organic growth and our M&A strategy
  - Offer ability to thoroughly **test the technology and market opportunity** before a potential acquisition
- Focus of partnering activities
  - Driving differentiation via technologies which **enhance speed to develop a clinical candidate** and **make earlier go/no-go decisions** (i.e. fail drugs faster)
- Success metrics for our partnership strategy
  - Goal to have 5-8 partnerships at steady state, accretive during partnership
  - Pre-negotiated terms for potential M&A to ease process and onboarding
  - Focus on **alignment of incentives to provide win-win** for CRL and partner

# SCIENCE TREND #1: Therapeutic choices

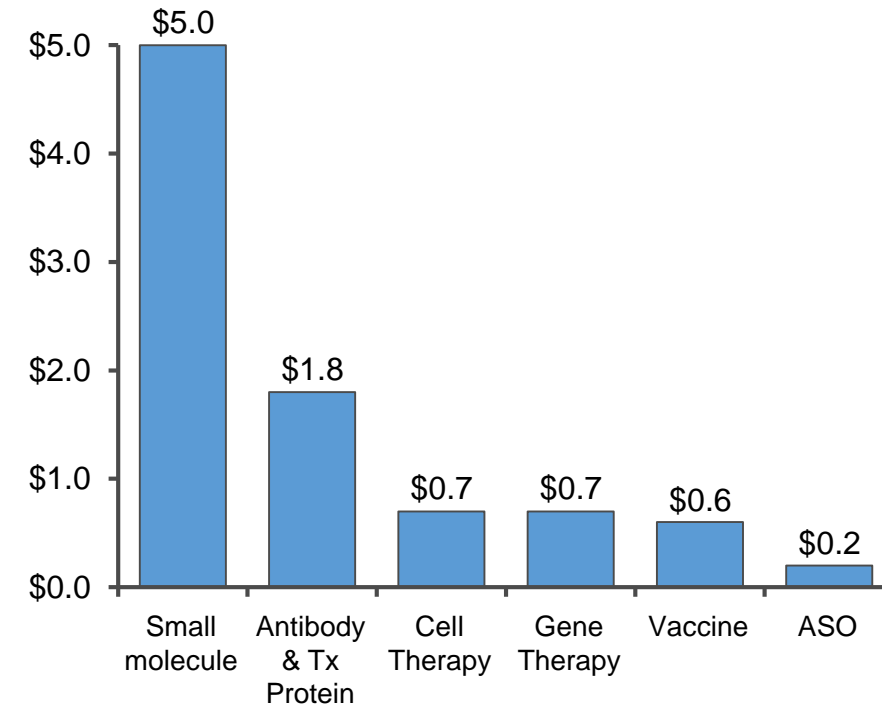


The nature of drug development has changed dramatically: Our clients have a multitude of options with many drugs from new modalities being approved

# Significant Opportunity in Biologics

- Pipelines and FDA approvals are increasing significantly for biologic drugs, particularly in C&GT
- CRL Safety Assessment (SA) revenue is currently derived from ~60% small molecule drugs and ~40% biologics
  - Mix shift anticipated due to strong growth in C&GT
  - Believe C&GT drugs could represent ~25% of the pipeline over time
- Small molecules will remain largest area of drug research
  - Market is more mature with expectation for moderate growth
- Antibody therapeutics have become “mainstream,” but a strong growth opportunity remains
  - Opportunity for incremental growth by enhancing large molecule discovery capabilities via next generation approaches
- C&GT is rapidly emerging as a precision option with a rapid path to clinic and validation by recent market approvals
  - CRL is already a leading C&GT CRO, particularly for Safety Assessment capabilities
  - Additional opportunities exist to further participate through market and technology adjacencies

**DSA Market Opportunity by Modality (2018)**  
(US\$ in billions)



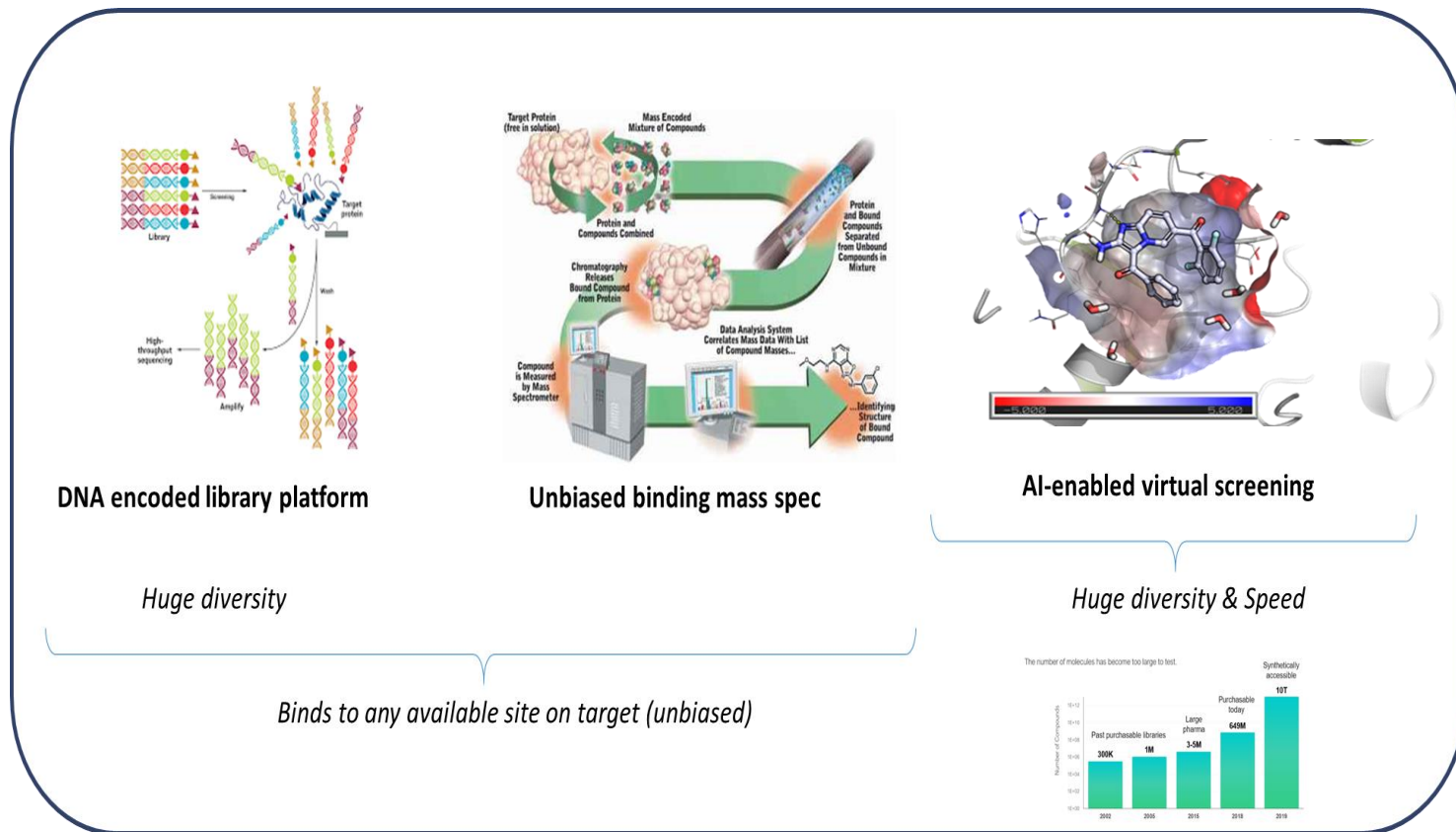
**Projected Market CAGR Through 2024 (%)**

7%	12%	30%-35%	30%-35%	3%	10%
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# Small Molecule Technologies

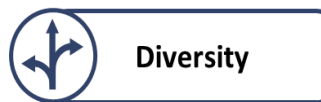
- DSA has a comprehensive portfolio of small molecule capabilities
- Focused on enhancing productivity of small molecule drug discovery efforts
  - Extending what is currently druggable; Reduce time and cost
- Partnerships aimed to strengthen:
  - Diverse & unbiased chemical libraries/screening platforms
  - *In silico* predictive technologies (AI)
  - Next-generation structural elucidation of targets
  - Improved target ID technologies



**Extreme diversity and unbiased binding tackles previously “undruggable” targets**

# Novel Antibody Technologies

- CRL SA is well positioned to help clients develop novel antibody therapies
  - Study value and complexity is higher than with small molecules
- *In vivo* Discovery (pharmacology) is also well positioned in this modality
- Emerging platforms to discover new antibodies in Early Discovery
  - Evaluating next-generation antibody and CAR-T reagent platforms to support advanced discovery efforts
  - Distributed Bio partnership performing well



## Diversity

- 76 billion antibodies
- >5000 enriched, specific clones against every target panned
- Picomolar hits against each antigen
- Unprecedented, fully-natural CDR diversity
- Computationally optimized CDR fitness



## Developability

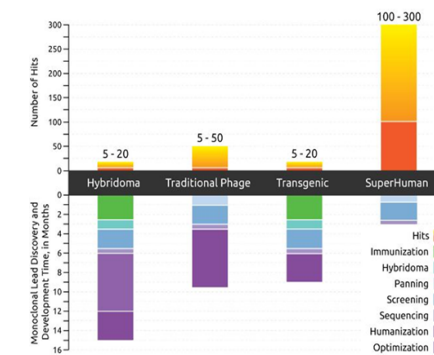
- Drug-worthy scaffolds
- Naturally selected CDR diversity
- 100% germline frameworks
- Enhanced thermostability
- Depleted liabilities



## Speed

- Single-pass multi-parameter optimization
- Easy affinity maturation
- Easy cross-species optimization
- Agile vector system

## Development time / number of hits:



## Example antibodies:



IgG



Fab



ScFv



VHH



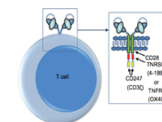
BiTE



Bispecific



Multi-specific



CAR-T

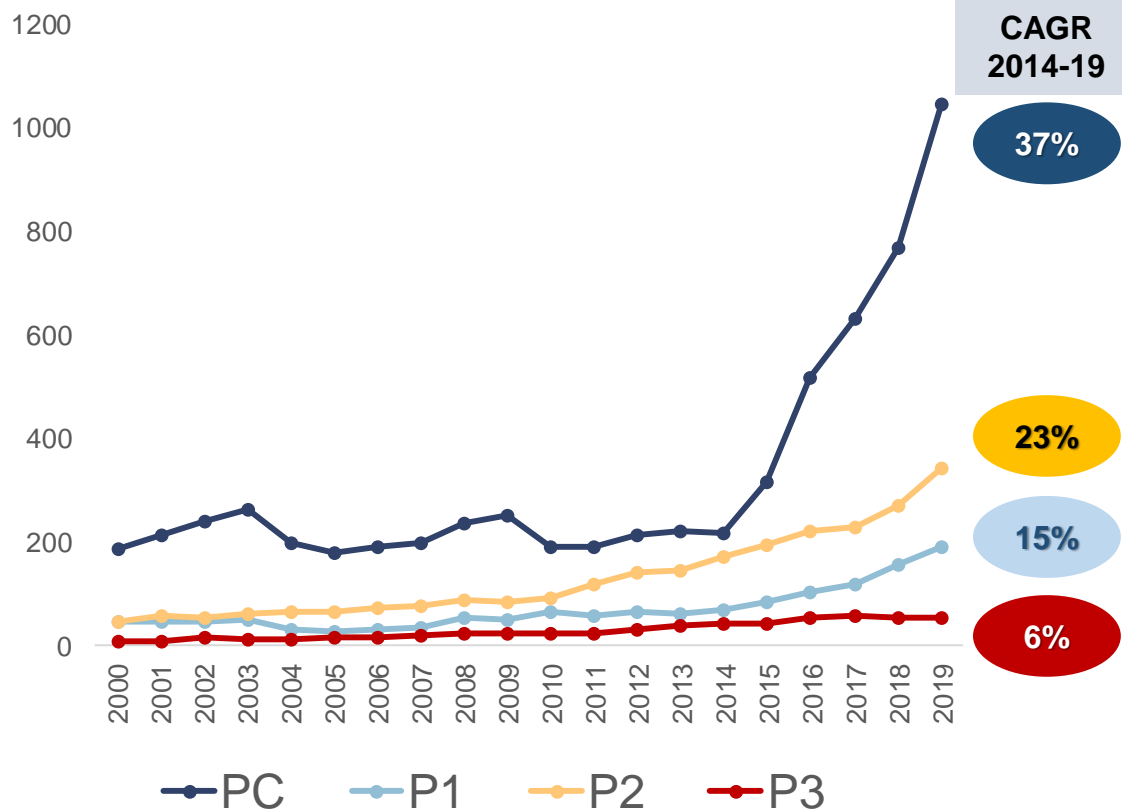
distributed**bio**

Next gen. platform delivering on a range of novel antibody modalities

Emerging demand for next-generation platforms for antibody and CAR-T therapeutics

# C&GT: Significant Growth Opportunity

## C&GT Pipeline by Phase



Biopharma industry investing heavily in this class of research due to its **broad clinical application** to treat a wide range of **diseases with unmet needs**



**6**  
total

Therapies approved by FDA today; address key delivery, safety, and efficacy challenges



**10-20**  
per year

**C&GTs** expected to be approved per year by 2025



**>600**

**Active programs** for C&GT in clinical trials worldwide



**~75%**

Programs in **Phase I or earlier**, setting the stage for massive growth



**>200**  
per year

**IND** filings for C&GT expected to be received by 2020



**\$10.6B**

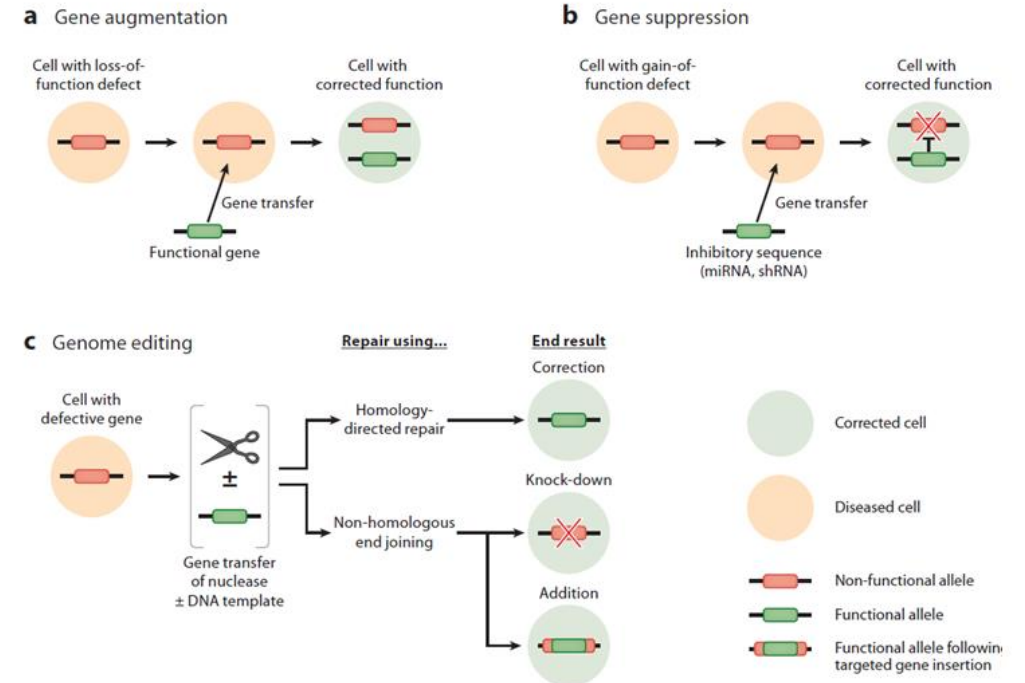
Funding for **C&GT companies** in 2018 alone

**charles river**  
MEETING WITH MANAGEMENT

# C&GT Technologies

- CRL is a leader in C&GT safety assessment
  - Also have C&GT capabilities in Research Models, Discovery, Biologics, and Microbial Solutions
  - **~\$100M** of current CRL C&GT annual revenue
- Areas for internal development and partnership include:
  - Hybrid efficacy and safety studies, next-gen. genotoxicity, plasmid & viral vector scale up for research and safety

## Example gene therapy processes:

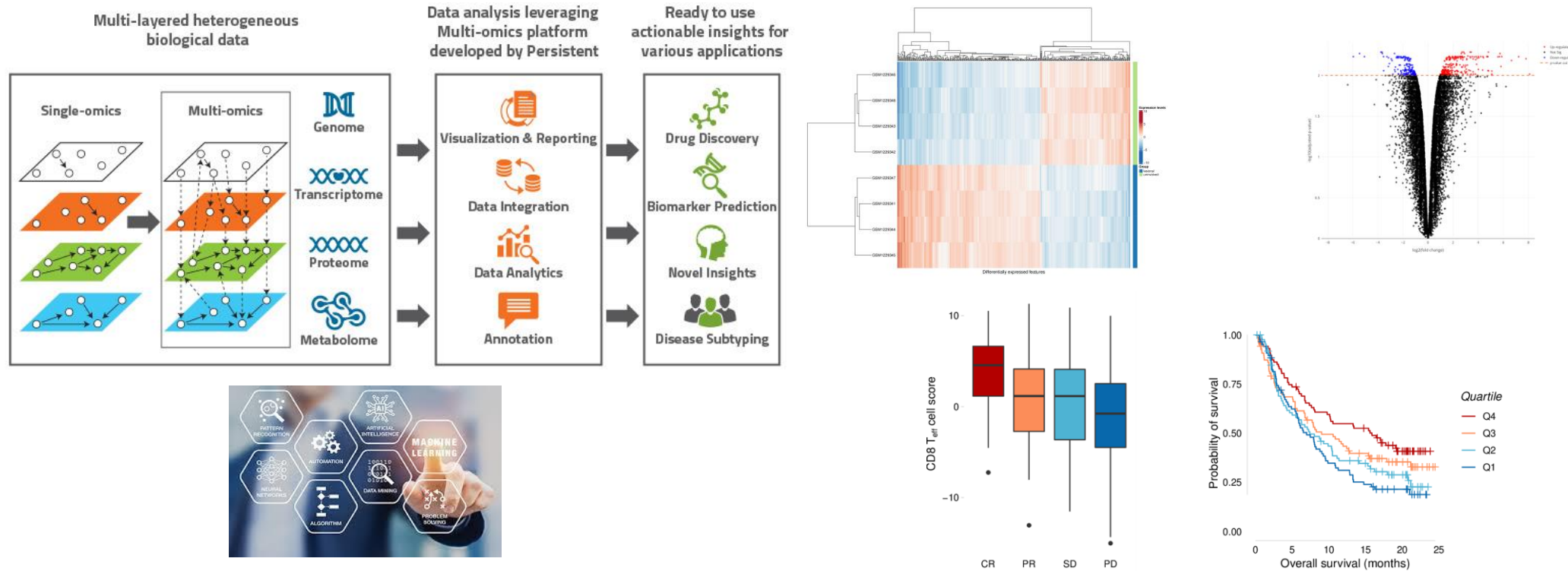


An opportunity to extend early-stage leadership in the C&GT market

# SCIENCE TREND #2:

## The availability of human data has increased

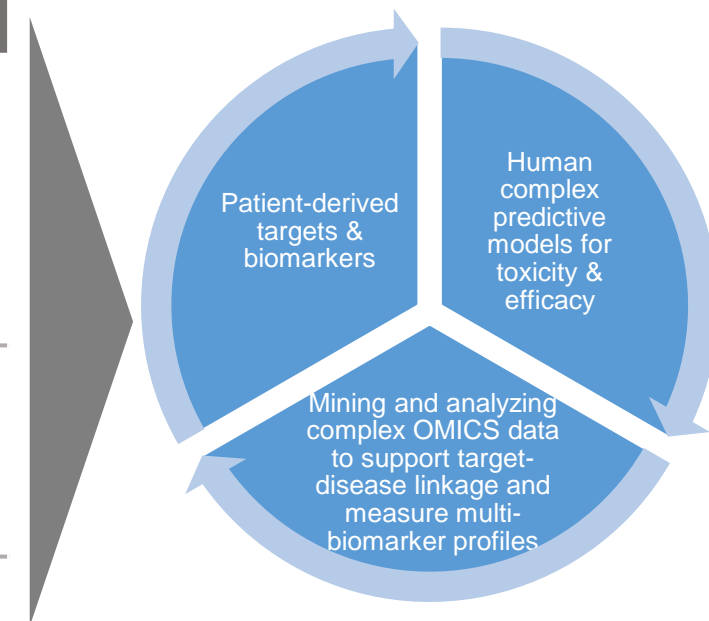
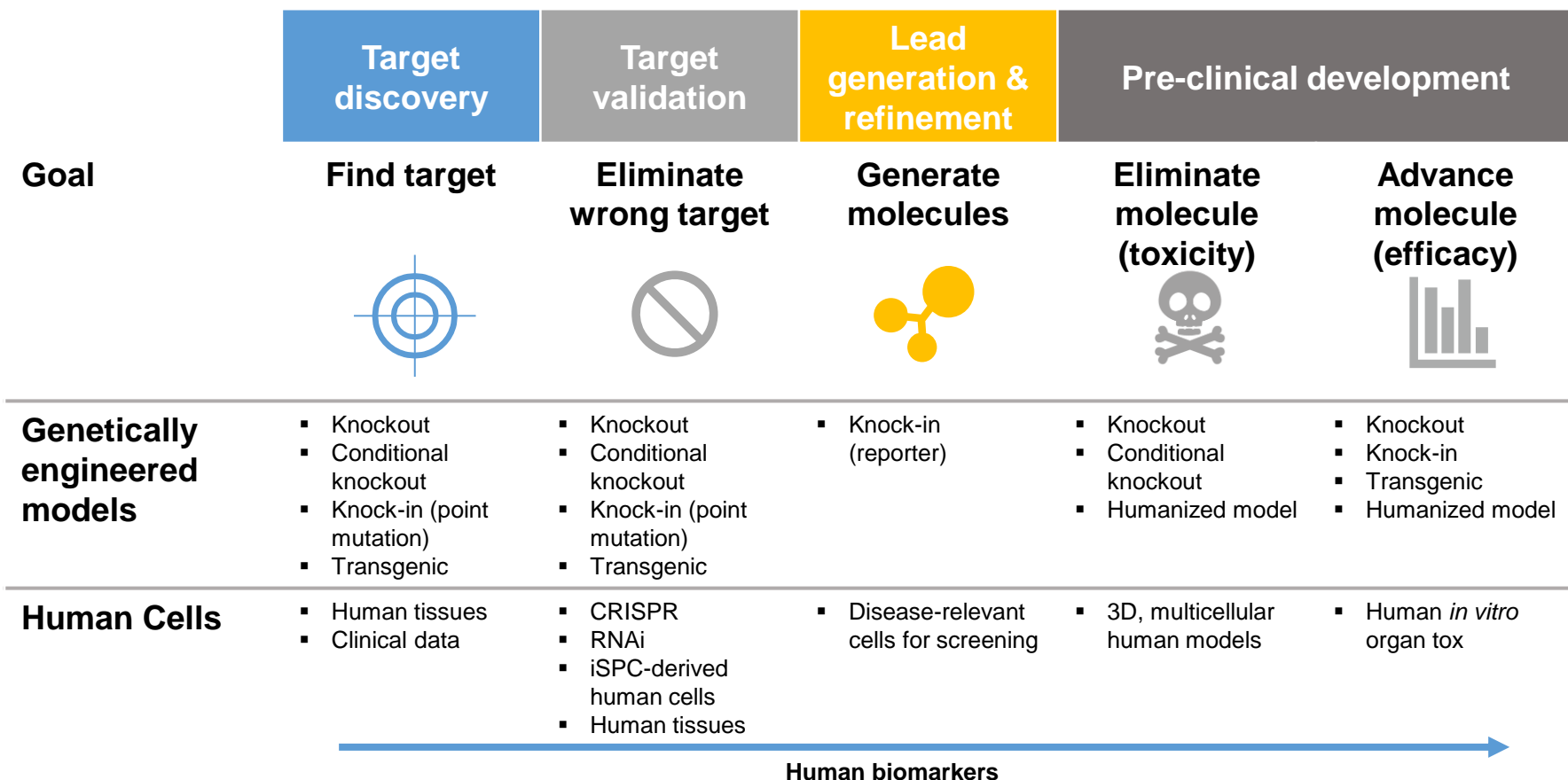
*Deep phenotyping being undertaken at a single-cell level, in parallel, at scale:*



Human clinical and research data generation has boomed and enhanced our ability to mine, analyze, and interpret how our clients think about and use data



# Human Translatability is Key Across All TAs



**Decisions around target, biomarkers, and patient populations will be driven by complex combination of human data**

# Therapeutic Pillars

## Oncology

## Immunology

## Neuroscience

### Discovery Market



\$500M, 14% CAGR

\$300M, 18% CAGR

\$200M, 4% CAGR

### Trends



- Human data, human cell models humanized *in vivo* models
- Combinations discovery & diagnostics
- CAR-T

- Immuno-oncology
- Neuroinflammation
- Microbiome
- Immunotoxicity

- Biologic therapeutics in CNS
- Modelling human disease *in vitro*
- New strategies for dementia
- R&O strategies

### CRL response



- Bioinformatics
- 3D human models
- Gene expression technologies

- Sophisticated *in vitro* human assays covering target engagement & biomarkers
- Gene expression technologies
- Predictive immunotoxicity assays

- Delivery of biologics thru BBB
- iPSC-derived human CNS cells
- 3D human cellular models
- Gene expression technologies

CRL has additional runway for growth among main TAs and can further differentiate with focus on human assays

# Partnerships are Key to Our Technology Strategy

## Scouting



- VC fund partners
- Clients
- Automated tools

## Deals



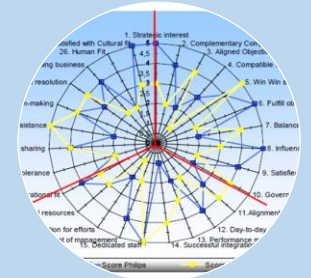
- Exclusive in CRO field
- 3- to 5-year term
- Sales & Marketing leverage from CRL
- Joint innovation
- Accretive during partnership

## Execution



- Accountable lead
- Functional leads
- JSC governance

## Health Checks



- Scorecards
- KPIs
- Client feedback

Building a technology partnership competence to support insight-driven M&A



# Microbial Solutions

---

Ian Jester  
Corporate Vice President, Sales  
Microbial Solutions

# Premier Portfolio of Rapid Quality-Control Testing Solutions



**>10%**

Revenue  
CAGR since  
Endosafe  
acquisition in  
1994

Recurring  
revenue stream

**~75%**

of annual  
revenue from  
reagents/  
consumables



**#1**

Market position in  
endotoxin testing  
with

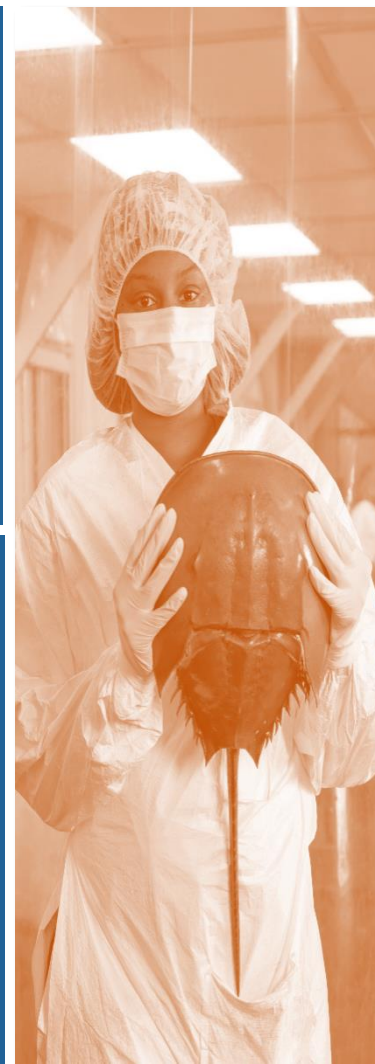
**~50%**

market share

Long runway  
for growth

**<10%**

of endotoxin  
tests converted  
to rapid methods



**>10M**

tests per year  
on Microbial  
Solutions' rapid  
testing platform

**No**

**Competitor**

has a similar  
comprehensive  
rapid testing  
portfolio



# Charles River Microbial Solutions

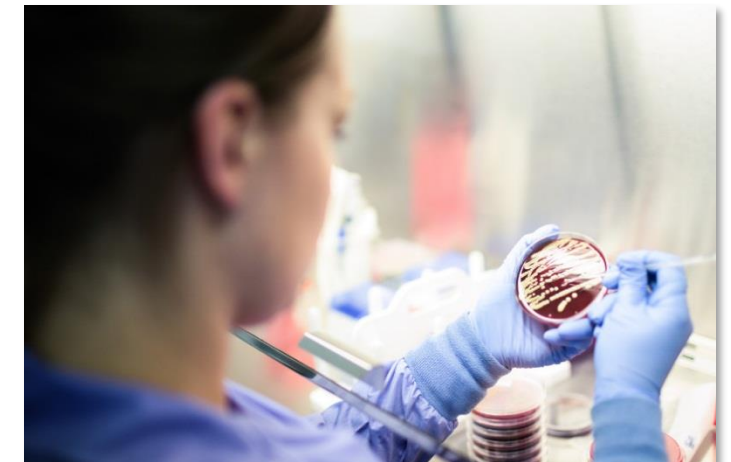
Premier global provider of integrated **quality control (QC) testing** products and services that rapidly detect, identify, and analyze **microbial contamination** throughout the manufacturing process to ensure our clients can efficiently deliver safe products to market



**Endosafe® Endotoxin  
Testing for Sterile  
Applications**  
Conventional or rapid PTS™ platform



**Celsis® Rapid Microbial  
Detection for Sterile & Non-  
Sterile Applications**



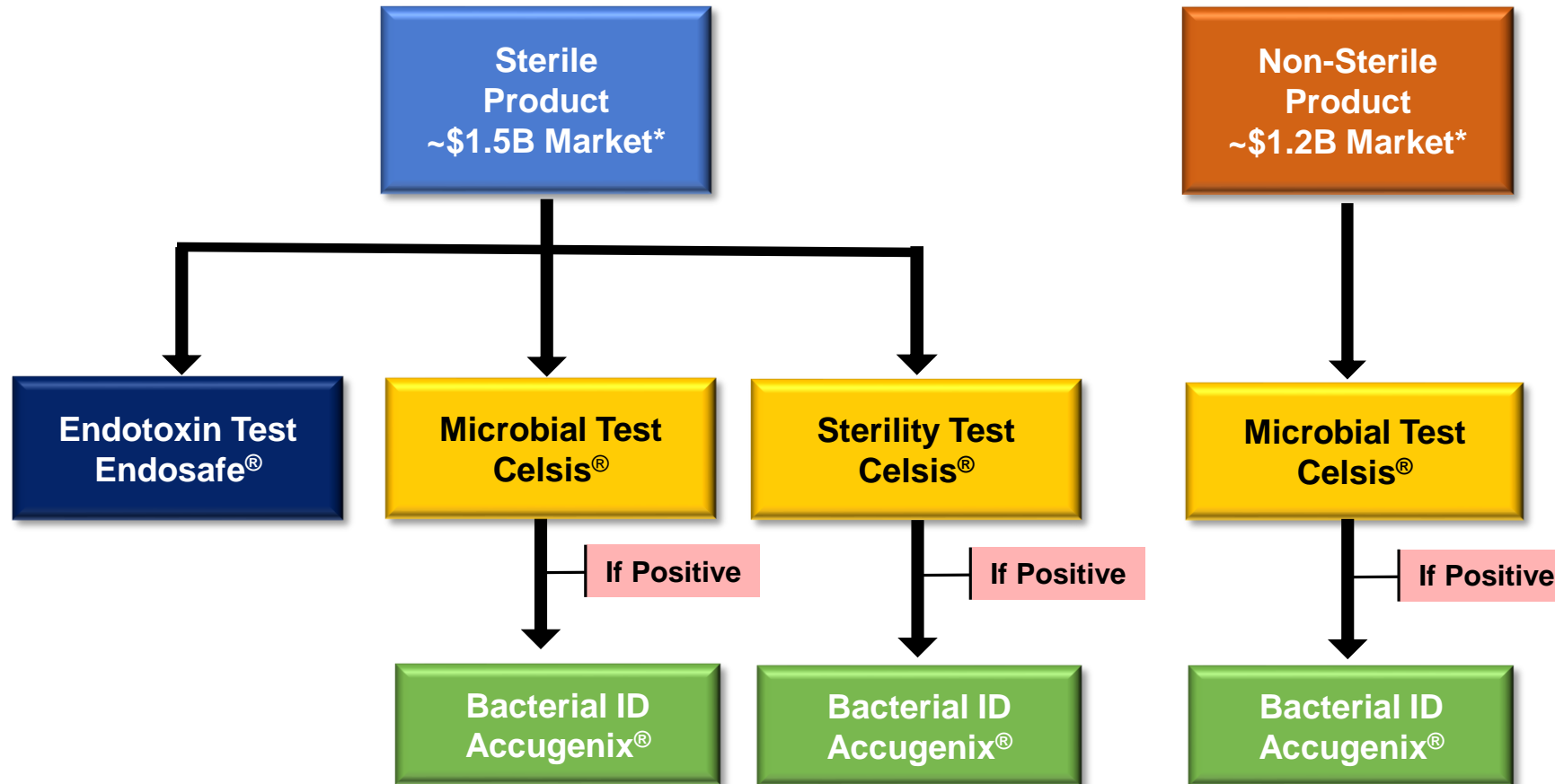
**Accugenix® Microbial  
Identification & Strain  
Typing**

# Quality Control (QC) Testing Environment

- **QC testing** is required to detect microbial contamination prior to product release across a wide range of industries
- Ensures **microbial contamination** does not exceed regulatory requirements in products for health or personal care
- Products target two market segments, which have different regulatory and testing requirements
  - **Sterile:** FDA-mandated QC testing for biologics and medical devices that come in contact with human blood (e.g. injectable drugs such as insulin; stents)
  - **Non-sterile:** Testing for conventional and OTC drugs and consumer products (e.g. pills, ointments, cosmetics, detergents)
- **Rapid testing methods** are replacing traditional methods to reduce risk, time, and cost
  - Also ensures data integrity



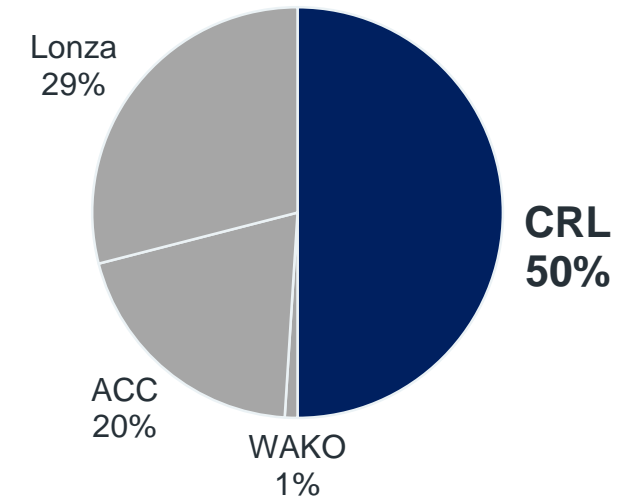
# QC Testing Process



# Endosafe® Endotoxin Testing



- Over **6,000 rapid testing systems** installed globally
- **~1.5M FDA-licensed PTS™ cartridges** were sold in 2018 for our Endosafe® rapid testing systems
- Significant opportunity remains with **<10% of endotoxin testing market converted** to rapid testing (by test volume)
- Endosafe® rapid tests are priced **~4x higher** than traditional tests, due to ease of use and rapid results
- Recent portfolio enhancements address endotoxin clients' needs
  - Improved data integrity, increased sample throughput, and comprehensive data management for investigation resolution

**Endotoxin Testing Market  
by Test Volume (~80M tests)**



**Innovative product offering improves clients' operational efficiencies and streamlines quality control by accelerating testing times and increasing flexibility**

# Celsis® Rapid Microbial Detection

Traditional Incubation Method		Celsis® Rapid Method
Manual eye counts	<b>Detection Principle</b>	Bioluminescent reagent
5-7 days microbial limits 14-21 days sterility	<b>Time</b>	24 hours microbial limits 6 days sterility
Labor intensive	<b>Ease of use</b>	Automated analysis
CFU or presence/absence	<b>Method</b>	Presence/absence
100-year-old growth method	<b>Technology platform</b>	Modern-but-proven method
High resource and inventory impact	<b>Operational impact</b>	Reduces time, resources, inventory
Lacks data integrity	<b>Data integrity</b>	Data integrity compliant

**Microbial detection and sterility portfolio significantly improves efficiency by reducing time to results, decreasing our clients' manufacturing lead times and inventory requirements**



# Accugenix® Microbial Identification



> 400,000

Samples processed  
in 2018



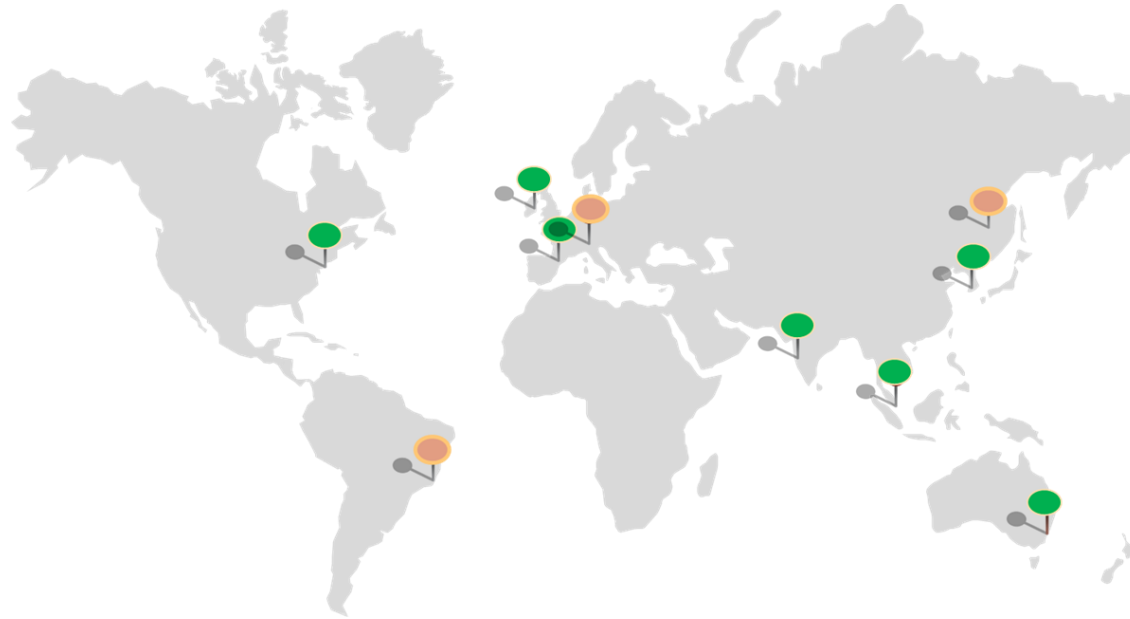
90%

Species identification  
rate



11,000+

Unique bacterial and  
fungal species entries in  
our proprietary libraries



> 91,000

Samples processed  
with same-day  
turnaround time



1,500

Samples a day  
tested in our labs



99%

On-time  
delivery rate

Continued expansion of our global, harmonized lab network offering microbial identification services with best-in-class accuracy and client responsiveness



# Microbial Solutions Recent Developments

- **Software launches** and **additional functionality** enhance clients' data integrity and efficiency
  - New EndoScan-V™ endotoxin measuring and analysis software addresses emerging client needs for data reporting and integrity
  - Cortex™ software simplifies client investigations and process monitoring
  - Drives adoption of automated Nexus™ endotoxin system
- Launched **Celsis® sterility** product for rapid release of pharmaceutical products
  - ~\$600M market using manual, subjective testing (~15M test/year)
  - Clients are looking to cut testing time by >50%
- Emerging cell and gene therapy products generating small but growing QC testing opportunity
- Continue to strengthen global footprint
  - Accugenix® expansion with new labs in **Australia** and **China**
  - Additional expansion planned into new countries/regions over next 5 years
- Expanded commercial team to more effectively support our global, multi-industry client base



# Microbial Solutions Operational Efficiencies

- Microbial Solutions is **one of most profitable businesses** in CRL's portfolio
  - Goal to maintain robust operating margin over longer term
- Continue to promote a **culture of operational excellence**
  - Drive further manufacturing efficiency through automation, scrap reduction, and procurement savings
  - Continue to enhance the global supply chain through implementation of world-class sales and operating planning (S&OP) process
    - Improved production planning, robust inventory management, and logistics efficiency
  - Build scalable infrastructure through expanded geographic footprint, automation, and flexible manufacturing capacity
    - Create regional centers for client support to enhance customer experience

# Microbial Solutions Growth Strategy



Continue to build leadership position in rapid microbial detection and identification

Expand global footprint to accelerate growth

Provide software solutions to improve client lab efficiency

Address industry need for lab efficiency through automation and improved data integrity

Leverage strength in sterile and non-sterile QC markets to drive client adoption of comprehensive portfolio

Continue to innovate product/service offerings through internal development, acquisition, and/or licensing



**Successful execution of opportunities drives long-term revenue growth >10%**





# Global Biologics Testing Solutions

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Kerstin Dolph  
Corporate Vice President,  
Global Biologics Testing Solutions



# Premier, Global CRO to Support Biologics Manufacturing



**>10%**  
Consistent,  
strong revenue  
growth

**Rapidly  
growing  
market** fueled  
by increasing  
number of  
biologic drugs  
in the pipeline



One of the  
**Leading**  
CROs in  
**\$1.4B-  
\$1.7B**  
addressable  
market

Ongoing capacity  
expansion  
expected to yield  
**margin  
expansion**  
opportunities in  
2020 and beyond

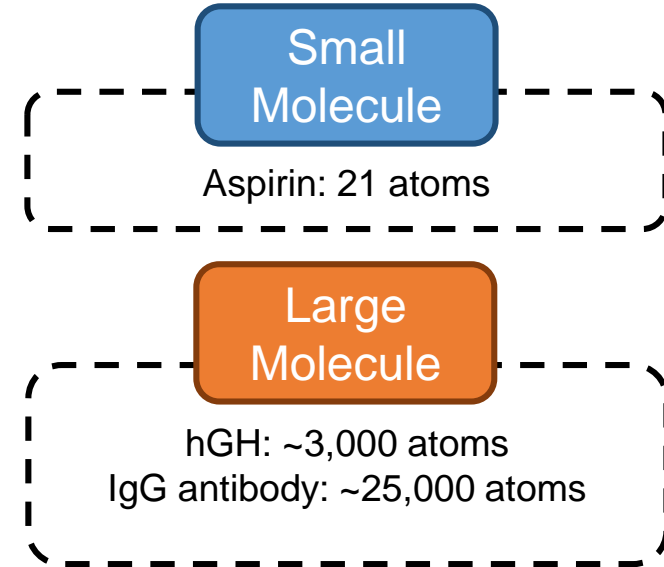
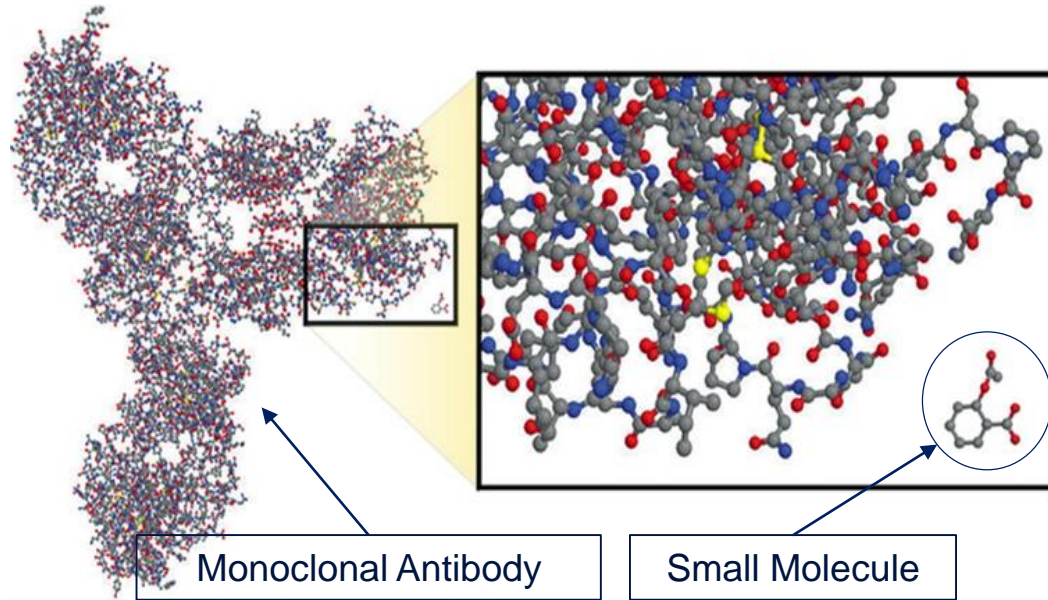


# Biologics Testing Solutions Overview

- Premier global CRO providing services that support our clients' **manufacture of biologics**
  - Providing **testing and assay development** from drug development to market
- Biologics testing is an essential, fast-growing market, expanding in the **low-double digits** year-over-year
- CRL is actively **investing in capacity** and expanding capabilities through internal development and M&A to meet increasing client demand



# Biologics vs. Small Molecule



## Purity

Creating a biologic with hundreds or thousands of processes makes purity a challenge



## Stability

Ensuring a protein that came from a living cell is exactly what it is supposed to be is much more difficult than ensuring bioequivalence of a small molecule



## Function

The function of a protein can vary widely with small changes to one of its many complexities



# CRL Offers Solutions to Address Biologics' Complexity

## Analytical/ Structural

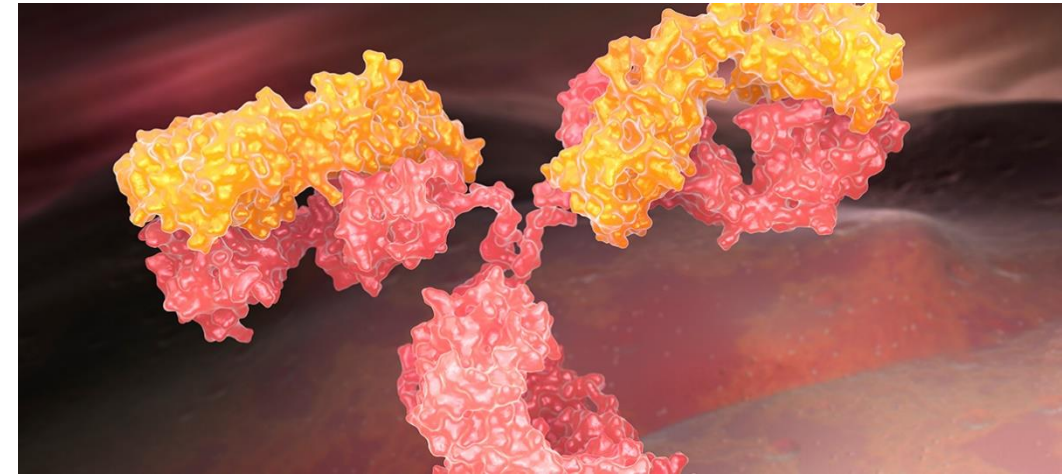
- **Characterizing biologics** is significantly more difficult than small molecules, involving numerous and complex tests

## Clearance/ Biosafety

- **Production via living systems** (i.e., E.coli, yeast, or mammalian cells) requires additional biosafety testing assays

## Potency/ Efficacy

- For **patient safety**, FDA requires more detailed structural and stability analysis of biologics and biosimilars

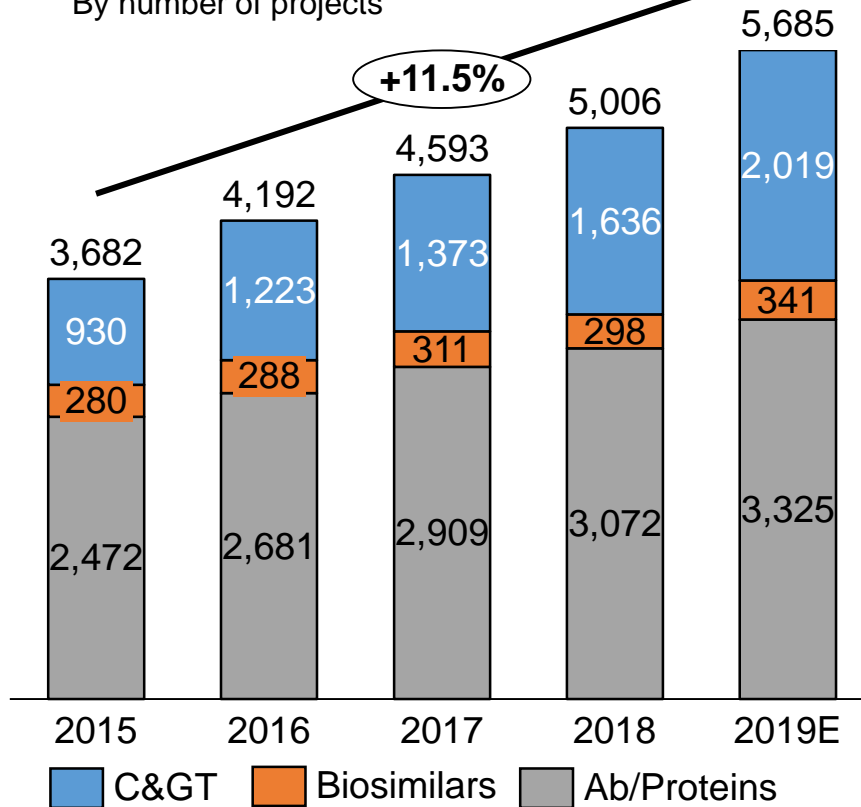


Biologics require significantly more analytical and biosafety testing from discovery through manufacturing and commercialization due to their larger size, complexity, and production in living systems

# Significant Biologics Market Growth

## Biologics Pipeline Projects (2015-2019E)

By number of projects



**C&GT**  
21% CAGR

**Biosimilars**  
6% CAGR

**Ab/Proteins**  
8% CAGR

## Key Information

- “New Biologics,” emerging market
- Smaller opportunity, moderate growth
- “Old Biologics”
- Strong but slowing growth
- “Old Biologics”

## Key Drivers

- Includes cell, gene, and stem cell therapies, and some viral vaccines globally
- Biosimilar development in Asia/ROW
- “Old” innovator (or novel) biologics represent a large and more mature manufacturing/testing area in North America and Europe

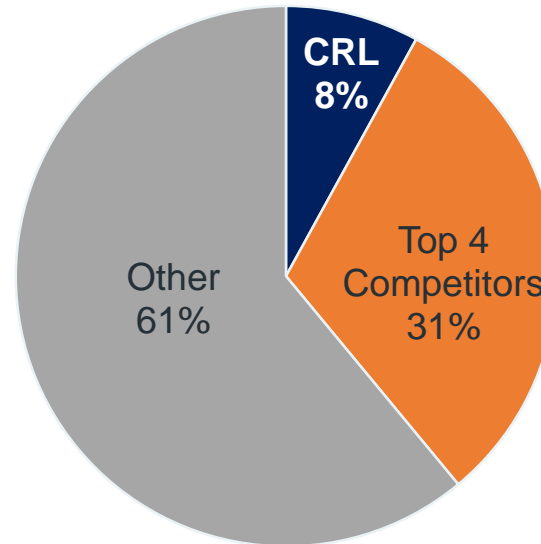
**Biologics market is growing in the low-double digits, primarily driven by cell/gene therapy projects**





# Biologics Testing Market Environment

## Biologics Testing Market Share



Source: CRL management estimates

### Clients

- Need **end-to-end** solutions
  - Including global regulatory expertise
- Many **lack infrastructure** and must **outsource**

### Fragmented Market

- **Highly fragmented** landscape
- Only 6 global full-service providers
- Many small/niche players

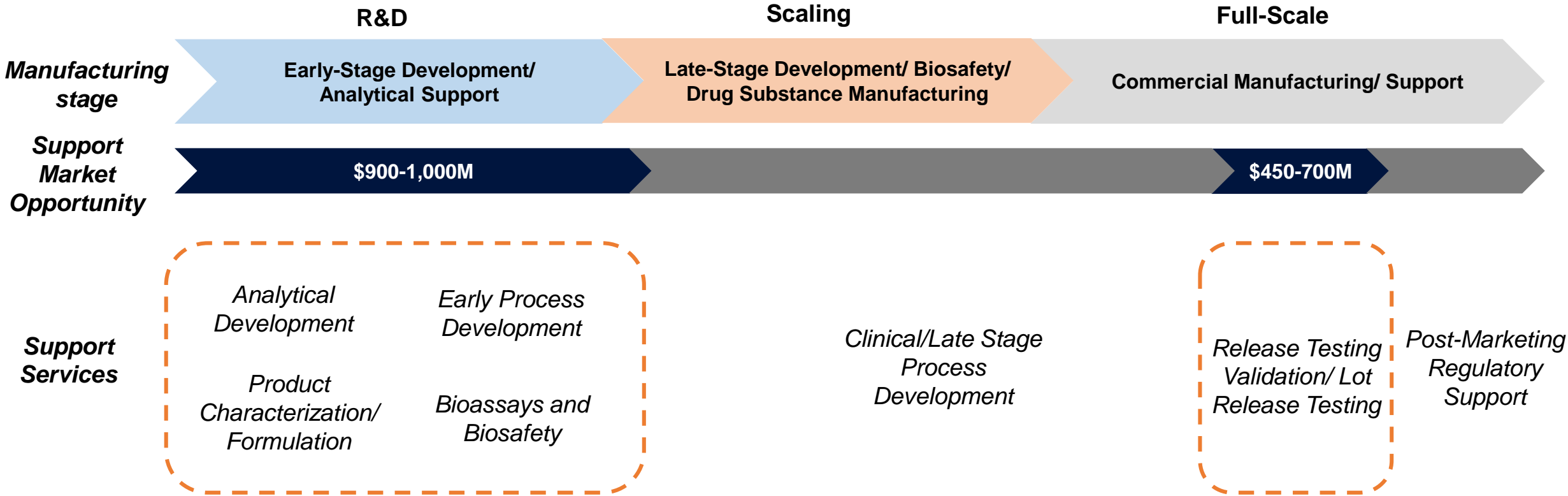
### Client Base

**Pharma**  
**Biotech**  
**CMO/CDMO**  
**Government**

# Biologics Market Opportunity

Key:

- CRL Biologics Offering
- Limited or No Offering



**Outsourced Market for Current CRL Service Areas**  
**\$1.4B-\$1.7B**

# Cell and Gene Therapy (C&GT) Offerings at CRL



## Analytical Support

Develop, qualify, and validate testing methods required for product identity, purity, and potency



## Safety Testing

Assure products are free of contamination from virus, microbial contaminants, or harmful process chemicals



## Cell Bank Manufacturing

Prepare and characterize the cell banks that are used in large-scale biologics manufacturing process

### *Who do we serve in C&GT?*

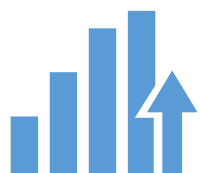
Recombinant and Monoclonal Antibody Therapeutic Proteins

Protein and Viral Vaccines

Gene and Cell Therapeutics

Microbiome Therapeutics

# Global Footprint Proximate to Clients



## Global Expansion

**Capacity expansions** in U.S. and Europe to accommodate increasing client demand



## Expansion in action at Pennsylvania

*Transition to new Pennsylvania site throughout 2019; Provides capacity to support U.S. growth for next 3-5 years*

CRL-Pennsylvania
<ul style="list-style-type: none"> <li>Cell Banking/ Characterization</li> <li>Biosafety</li> <li>Viral Clearance</li> <li>Analytical GMP</li> </ul>

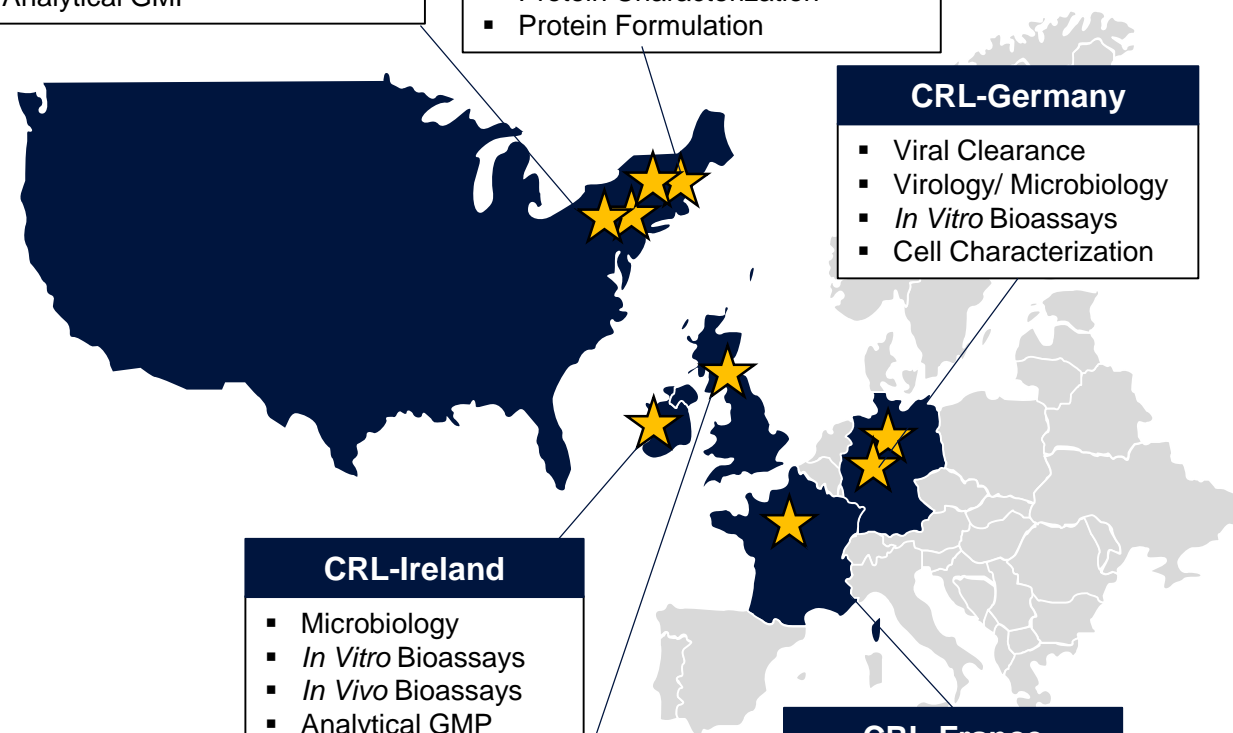
CRL-Massachusetts
<ul style="list-style-type: none"> <li>Analytical GMP/ Stability</li> <li><i>In Vitro</i> Bioassays</li> <li><i>In Vivo</i> Bioassays/ Lot Release</li> <li>Protein Characterization</li> <li>Protein Formulation</li> </ul>

CRL-Germany
<ul style="list-style-type: none"> <li>Viral Clearance</li> <li>Virology/ Microbiology</li> <li><i>In Vitro</i> Bioassays</li> <li>Cell Characterization</li> </ul>

CRL-Ireland
<ul style="list-style-type: none"> <li>Microbiology</li> <li><i>In Vitro</i> Bioassays</li> <li><i>In Vivo</i> Bioassays</li> <li>Analytical GMP</li> </ul>

CRL-UK
<ul style="list-style-type: none"> <li>Analytical Dev.</li> <li>Analytical GMP</li> <li><i>In Vitro</i> Bioassays</li> <li><i>In Vivo</i> Bioassays</li> </ul>

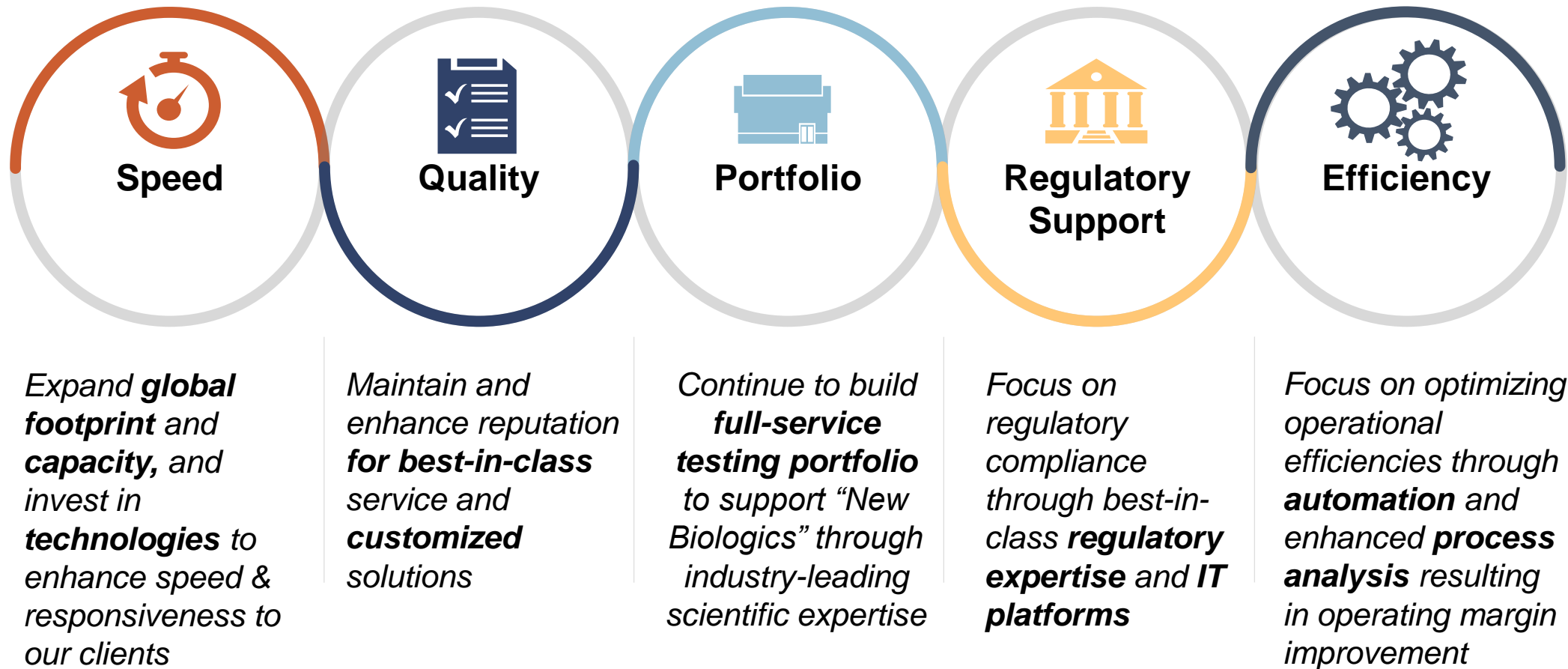
CRL-France
<ul style="list-style-type: none"> <li><i>In Vivo</i> Bioassays</li> </ul>



➤ **Short-term** margin headwind from capacity expansion will yield long-term benefits and operating margin leverage

- Pennsylvania expansion reduced 1H19 Manufacturing segment operating margin by ~60 bps
- Margin headwind will be eliminated by year-end 2019 and Biologics profitability expected to meaningfully improve in 2020

# Biologics Growth Strategy







# Research Models and Services

---

Colin Dunn, Ph.D.  
Corporate Senior Vice President,  
Global Research Models & Services

# Leading Provider of High-Quality Research Models & Services



**~1 of 2**

Small models  
sold in  
Western  
markets is a  
CRL model

**No  
Competitor**

has the  
geographic  
breadth and  
scale of CRL



**#1**

market position

**~\$1.5B**

RMS market  
opportunity



**>70**

years of  
innovation and  
market  
leadership in  
laboratory  
animal science

**Double-digit  
revenue  
growth in  
China**

# Importance of Research Models & Services

- Research models are critical tools that enable researchers to answer fundamental questions about the efficacy and safety of drugs
- Used across multiple drug research disciplines (fundamental research, discovery, safety assessment), therapeutic areas, client types, and in all geographic regions
- Services to support the use of research models offer investigators a set of tools for the creation, qualification, scale up, or refinement of models as novel genes or pathways are identified
- Believe research models will remain an essential, regulatory-required, low-cost, scientific tool for drug research





# RMS Business Overview

- Global leader in breeding and distribution of research models and the services which support their use in discovery/ development of new molecules

## Research Models

- VAF/Plus® and VAF/Elite® status
- Inbred, outbred, and hybrid models
- Immunodeficient models
- Disease models
- Humanized models

## GEMS/RADS

- Creation and breeding of genetically engineered models
- Genetic testing services
- Infectious disease diagnostics

## Insourcing Solutions (IS)

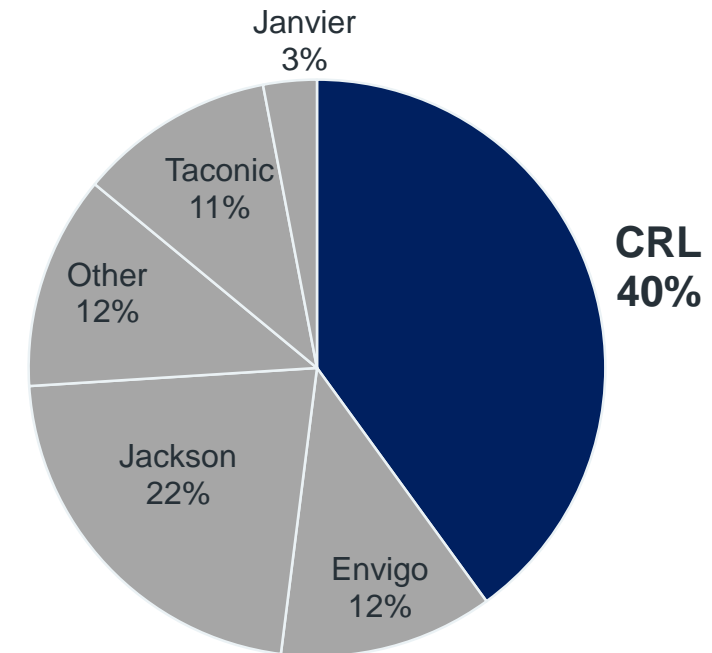
- Vivarium management and laboratory support services
- Flexible solutions to address clients' research needs



# RMS Global Market & Growth Drivers

- CRL continues to maintain and expand its leading position
  - **~1 of every 2** small research models sold in Western markets comes from CRL
  - Market leader for research models services
  - **~\$1.5B** RMS total market opportunity (including IS)
- CRL's two-year RMS organic revenue growth expected to be in the **low- to mid-single digits** annually
  - Growth drivers:
    - Robust double-digit growth in **China**
    - Modest **RM price increases** annually
    - Continued growth in **RM Services**
  - Offset by modest unit volume declines in mature markets outside of China
    - **Large biopharma infrastructure consolidation**
    - **Targeted research** resulting in more efficient study designs
    - Use of **innovative screening technologies**

**RMS Market Share**  
(Excluding IS)

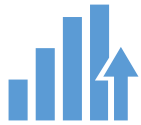


Source: CRL management estimates.

**CRL RM market share**  
**nearly 50% in Western markets**



# Key RMS Growth Drivers



1

## Continue China expansion

*Support double-digit growth amidst healthy funding environment*



2

## Drive Insourcing Solutions and GEMS growth

*Expand CRADL footprint; enhance IS penetration; expand GEMS strategic relationships*



3

## Target growth in biotech and academia

*Targeted sales strategies aimed at growing biotech and academic markets*



4

## Enhance digital enterprise

*Enhance client experience and productivity through innovative uses of technology*

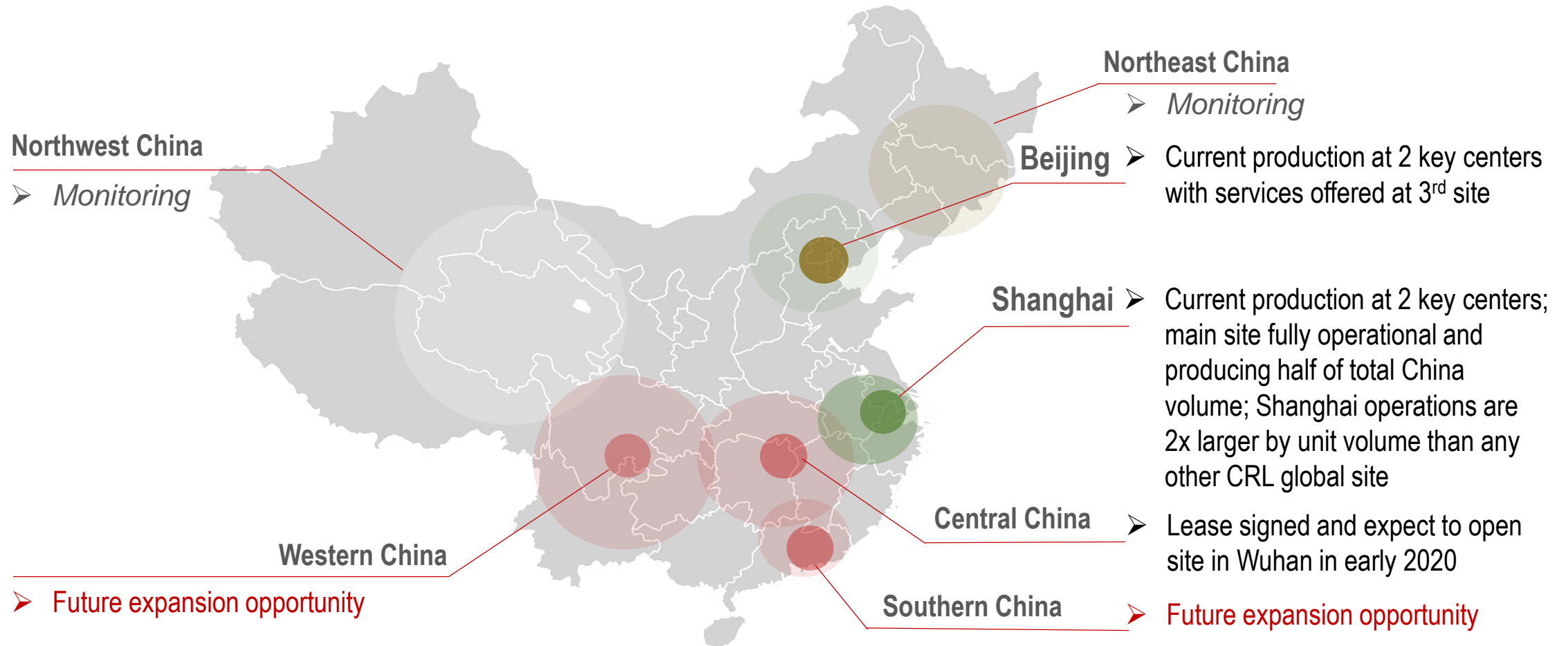


5

## Profitability improvement initiatives

*Identify and execute initiatives to offset anticipated margin pressure*

# China RMS Expansion

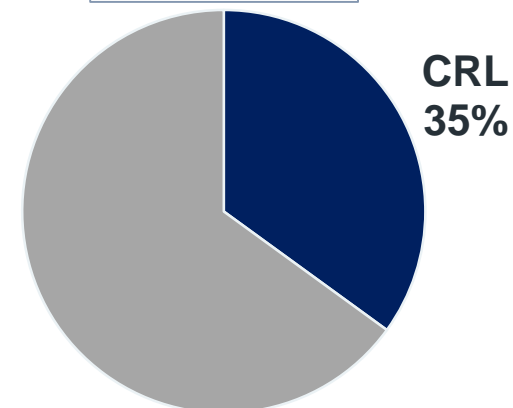


# China RMS Expansion Drivers

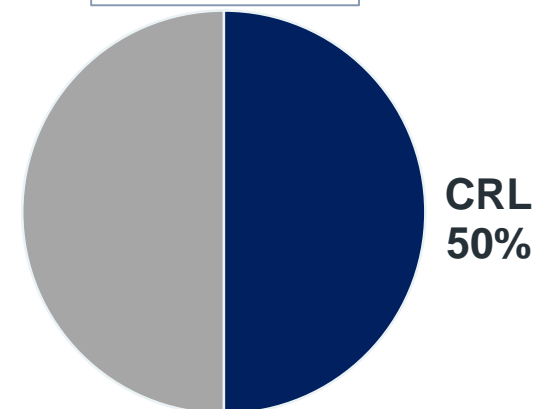
- Beijing and Shanghai are major, expanding R&D hubs for both global biopharma and local institutions
  - R&D hubs also emerging in Central and Western China
- Robust market growth fueled by support for biomedical research in China and demand for quality research models
- Primary drivers to a 50% market share in China
  - Continued expansion to increase market penetration in new geographic regions
    - Central China (Wuhan), Southern China, and Western China
  - Synergies with adjacent RMS service lines
  - Enhance sales & marketing presence and use of digital tools

## China RMS Market Share (\$)

Today



5-Year Goal



**China expected to be CRL's largest research model market by unit volume in 2019;  
RMS revenue in China targeted to surpass Europe within 5 years**

# RM Services Growth Opportunity

- Scientific innovation propelling the complexity of drug research
  - Clients utilizing higher proportion of specialty models
    - Inbred models for genetic modification, investigating gene function, or qualifying drug targets
    - Immuno-deficient models for oncology research
  - Leveraging innovative technologies such as CRISPR
- Driving increased use and outsourcing of RM Services, particularly GEMS
  - Breeding and creation of complex models benefits from the expertise of our GEMS business
    - Use of CRISPR resulting in faster, cost-effective creation of genetically engineered models (often multiple modifications required)
  - Additional health monitoring required from our RADS business



# RM Services: Insourcing Solutions

- Insourcing Solutions offers clients a variety of flexible solutions
  - Enhances the efficiency of clients' vivarium management
  - Offers flexible vivarium space at a CRL site supported by our management and technical experts
- Academic and government institutions have historically been the primary client base
  - Awarded 5-year, \$95.7M contract in Sept 2018 by the National Institute of Allergy and Infection Diseases (NIAID)
  - Significant growth opportunity by increasing market penetration for global biopharma clients
  - Profitability of our IS contracts is lower than our corporate operating margin, but good cash flow and minimal capex
- IS attracting new biopharma clients with flexible operational models within our infrastructure
  - CRADL initiative (or Charles River Accelerator and Development Labs) provides biopharma clients with turnkey facility
  - First location opened in Boston/Cambridge biohub in 2015
  - On track to open CRADL site in South San Francisco biohub by early 2020, co-located with Discovery footprint
  - Continue to expand into new biohub regions to drive future growth
  - Utilizing CRADL allows clients to invest in their research programs instead of their infrastructure
  - CRADL enables clients to seamlessly utilize additional CRL early-stage services



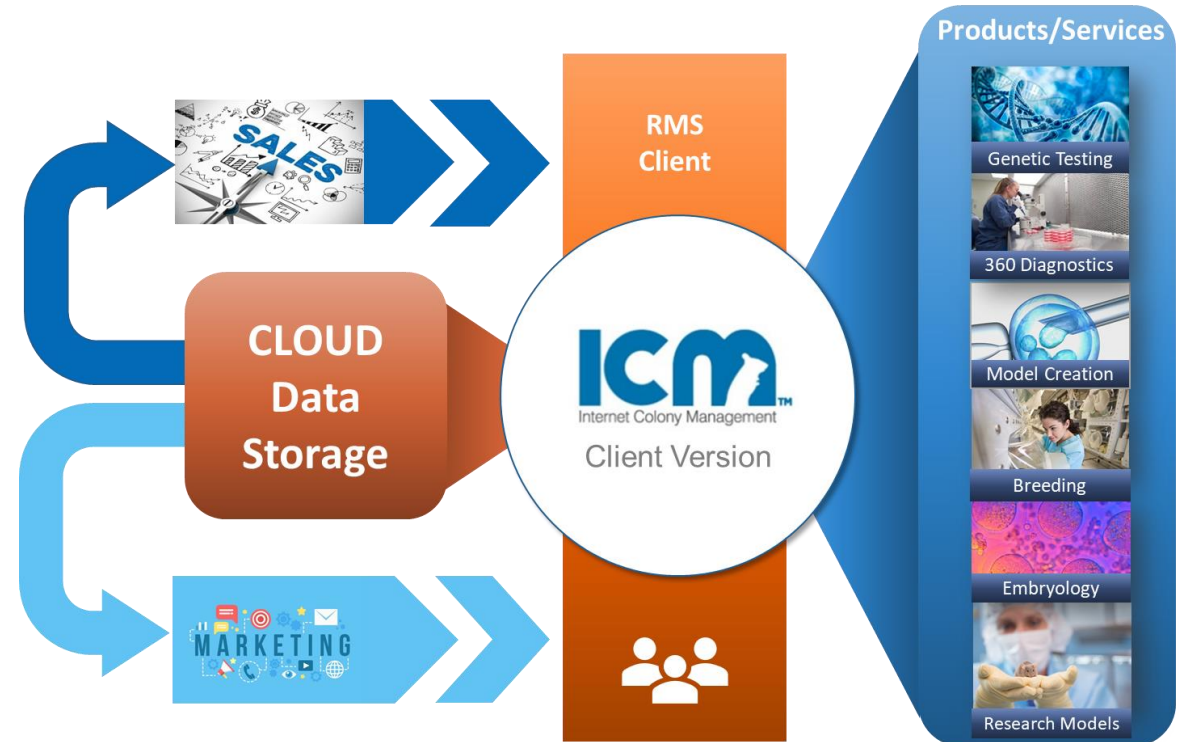
# Targeting Growth in Biotech and Academia

- Targeted initiatives to promote market share gains and growth in Biotech and Academic client segments

Targeted Sales Approach	<ul style="list-style-type: none"><li>▪ Target Principal Investigators (PIs) for early access in purchase cycle</li><li>▪ Progress Inside Sales team and Account-Based Marketing to expand reach to PIs</li><li>▪ Improve pull-through across different business units including Discovery Services</li></ul>
Add Value	<ul style="list-style-type: none"><li>▪ Turnkey solutions with CRADL to reduce client infrastructure requirements</li><li>▪ Support client core infrastructure with expertise and flexibility for their peaks</li><li>▪ Strategic pricing to incentivize volume increases</li></ul>
Seamless Client Experience	<ul style="list-style-type: none"><li>▪ Enhanced use of e-commerce to improve ease and speed of purchase</li><li>▪ With digital tools, ensure that biotech clients supported through life cycle</li></ul>
Portfolio Expansion	<ul style="list-style-type: none"><li>▪ Drive portfolio expansion activities for greater alignment with current and future needs (i.e. humanized models, key therapeutic areas, and microbiome)</li></ul>

# Enhance RMS Digital Enterprise

- Leverage enhanced digital footprint to improve operational efficiency and client experience
  - Enhance data quality and efficiency by eliminating manual processes
  - Provide clients with real-time, 24-hour access to scientific/project data and sales quotations
  - Increased speed as projects are managed in one platform for more efficient workflow and tighter project timelines
- Migrate from client self-service to comprehensive “RMS Connectivity” capabilities using client ICM™ platform
  - Goal to enable online ordering and full client capabilities for both research models and services



# RMS Profitability Improvement Initiatives

- Committed to sustain RMS non-GAAP operating margin above 25%

## China

- Operating margin improvement in RMS China principally driven by greater scale and operating leverage on growth/expansion investments

## Services

- Leverage from continued growth in IS and GEMS businesses
  - IS Drivers: CRADL expansion to new geographies; Increase global biopharma penetration
  - GEMS Drivers: Client ICM™ expansion to increase efficiency and market share gains
- Partially offset by RMS business mix with growth from lower-margin IS services

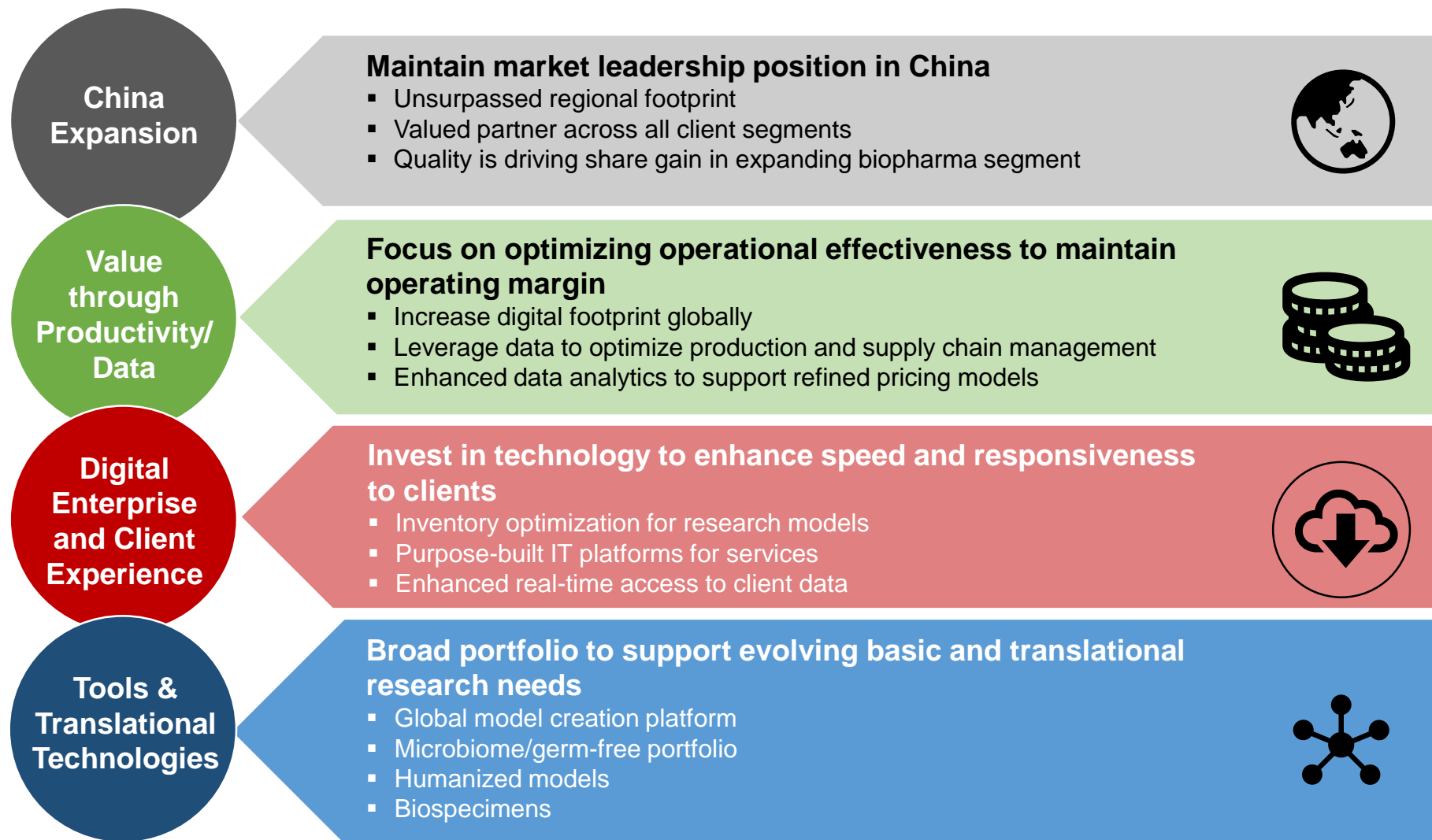
## Efficiency & Other

- Continue to evaluate initiatives to enhance operating efficiency and improve profitability
  - Continued consolidation of small RMS sites globally to align production capacity with demand
  - Migrate towards comprehensive “RMS Connectivity” e-commerce platform
  - Evaluate strategic pricing opportunities

## Mature Markets

- Continued modest decline in research model volume in mature markets pressures RMS operating margin despite efficiency initiatives
  - Offset by continued model pricing increases
- Magnifies mix shift to lower-margin Services businesses (i.e. IS)

# Global RMS Strategic Imperatives





# Charles River Laboratories 2019 Meeting with Management Regulation G Financial Reconciliations

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September 12, 2019



**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP TO NON-GAAP**  
**SELECTED BUSINESS SEGMENT INFORMATION (UNAUDITED)<sup>(1)</sup>**  
(in thousands, except percentages)

	Three Months Ended		Six Months Ended	
	June 29, 2019	June 30, 2018	June 29, 2019	June 30, 2018
<b>Research Models and Services</b>				
Revenue	\$ 136,054	\$ 130,426	\$ 273,226	\$ 264,384
Operating income	31,512	34,245	69,344	72,772
Operating income as a % of revenue	23.2 %	26.3 %	25.4 %	27.5 %
Add back:				
Amortization related to acquisitions	349	408	701	817
Severance	565	220	725	743
Acquisition related adjustments <sup>(2)</sup>	2,201	—	2,201	—
Site consolidation costs, impairments and other items	76	69	257	584
Total non-GAAP adjustments to operating income	\$ 3,191	\$ 697	\$ 3,884	\$ 2,144
Operating income, excluding non-GAAP adjustments	\$ 34,703	\$ 34,942	\$ 73,228	\$ 74,916
Non-GAAP operating income as a % of revenue	25.5 %	26.8 %	26.8 %	28.3 %
Depreciation and amortization	\$ 4,981	\$ 4,901	\$ 9,303	\$ 9,754
Capital expenditures	\$ 5,049	\$ 5,314	\$ 9,161	\$ 9,939
<b>Discovery and Safety Assessment</b>				
Revenue	\$ 405,517	\$ 346,416	\$ 759,714	\$ 606,408
Operating income	63,514	56,623	110,219	97,482
Operating income as a % of revenue	15.7 %	16.3 %	14.5 %	16.1 %
Add back:				
Amortization related to acquisitions	19,772	16,051	36,507	23,592
Severance	672	1,197	685	943
Acquisition related adjustments <sup>(3)</sup>	1,738	767	3,992	1,197
Site consolidation costs, impairments and other items	—	—	—	(143)
Total non-GAAP adjustments to operating income	\$ 22,182	\$ 18,015	\$ 41,184	\$ 25,589
Operating income, excluding non-GAAP adjustments	\$ 85,696	\$ 74,638	\$ 151,403	\$ 123,071
Non-GAAP operating income as a % of revenue	21.1 %	21.5 %	19.9 %	20.3 %
Depreciation and amortization	\$ 37,549	\$ 31,042	\$ 71,333	\$ 51,829
Capital expenditures	\$ 15,141	\$ 10,894	\$ 23,989	\$ 23,696
<b>Manufacturing Support</b>				
Revenue	\$ 115,997	\$ 108,459	\$ 229,197	\$ 208,479
Operating income	33,141	34,115	64,640	62,638
Operating income as a % of revenue	28.6 %	31.5 %	28.2 %	30.0 %
Add back:				
Amortization related to acquisitions	2,274	2,281	4,598	4,599
Severance	74	—	301	870
Acquisition related adjustments <sup>(3)</sup>	106	15	156	15
Site consolidation costs, impairments and other items	297	—	1,305	159
Total non-GAAP adjustments to operating income	\$ 2,751	\$ 2,296	\$ 6,360	\$ 5,643
Operating income, excluding non-GAAP adjustments	\$ 35,892	\$ 36,411	\$ 71,000	\$ 68,281
Non-GAAP operating income as a % of revenue	30.9 %	33.6 %	31.0 %	32.8 %
Depreciation and amortization	\$ 5,782	\$ 5,868	\$ 11,587	\$ 11,604
Capital expenditures	\$ 4,272	\$ 3,188	\$ 7,878	\$ 10,022

CONTINUED ON NEXT SLIDE

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP TO NON-GAAP**  
**SELECTED BUSINESS SEGMENT INFORMATION (UNAUDITED)<sup>(1)</sup>**  
(in thousands, except percentages)

	Three Months Ended		Six Months Ended	
	June 29, 2019	June 30, 2018	June 29, 2019	June 30, 2018
<b>CONTINUED FROM PREVIOUS SLIDE</b>				
<b>Unallocated Corporate Overhead</b>	\$ (48,399)	\$ (48,273)	\$ (94,643)	\$ (88,353)
Add back:				
Severance	—	659	—	659
Acquisition related adjustments <sup>(3)</sup>	12,470	11,033	17,892	13,897
Other items <sup>(4)</sup>	\$ 1,029	\$ —	\$ 1,029	\$ —
Total non-GAAP adjustments to operating expense	\$ 13,499	\$ 11,692	\$ 18,921	\$ 14,556
Unallocated corporate overhead, excluding non-GAAP adjustments	\$ (34,900)	\$ (36,581)	\$ (75,722)	\$ (73,797)
<b>Total</b>				
Revenue	\$ 657,568	\$ 585,301	\$ 1,262,137	\$ 1,079,271
Operating income	\$ 79,768	\$ 76,710	\$ 149,560	\$ 144,539
Operating income as a % of revenue	12.1 %	13.1 %	11.8 %	13.4 %
Add back:				
Amortization related to acquisitions	22,395	18,740	41,806	29,008
Severance and executive transition costs	1,311	2,076	1,711	3,215
Acquisition related adjustments <sup>(2)(3)</sup>	16,515	11,815	24,241	15,109
Site consolidation costs, impairments and other items <sup>(4)</sup>	1,402	69	2,591	600
Total non-GAAP adjustments to operating income	\$ 41,623	\$ 32,700	\$ 70,349	\$ 47,932
Operating income, excluding non-GAAP adjustments	\$ 121,391	\$ 109,410	\$ 219,909	\$ 192,471
Non-GAAP operating income as a % of revenue	18.5 %	18.7 %	17.4 %	17.8 %
Depreciation and amortization	\$ 49,146	\$ 43,396	\$ 94,504	\$ 76,606
Capital expenditures	\$ 24,781	\$ 21,213	\$ 41,512	\$ 48,939

- (1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.
- (2) This amount represents a \$2.2 million charge recorded in connection with the modification of the option to purchase the remaining 8% equity interest in Vital River.
- (3) These adjustments are related to the evaluation and integration of acquisitions, which primarily include transaction, third-party integration, and certain compensation costs, and fair value adjustments associated with contingent consideration.
- (4) This amount relates to third-party costs, net of insurance reimbursements, associated with the remediation of the unauthorized access into the Company's information systems which was detected in March 2019.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP EARNINGS TO NON-GAAP EARNINGS (UNAUDITED)<sup>(1)</sup>**  
**(in thousands, except per share data)**

	<b>Three Months Ended</b>		<b>Six Months Ended</b>	
	<b>June 29, 2019</b>	<b>June 30, 2018</b>	<b>June 29, 2019</b>	<b>June 30, 2018</b>
Net income attributable to common shareholders	\$ 43,728	\$ 53,709	\$ 98,861	\$ 106,340
Less: Income from discontinued operations, net of income taxes	—	1,529	—	1,506
Net income from continuing operations attributable to common shareholders	43,728	52,180	98,861	104,834
Add back:				
Non-GAAP adjustments to operating income (Refer to Slide 3)	41,623	32,700	70,349	47,932
Write-off of deferred financing costs and fees related to debt refinancing	—	1,799	—	5,060
Venture capital (gains) losses	4,254	(10,934)	(6,321)	(17,385)
Tax effect of non-GAAP adjustments	(8,491)	(4,466)	(12,371)	(6,345)
Net income from continuing operations attributable to common shareholders, excluding non-GAAP adjustments	<u>\$ 81,114</u>	<u>\$ 71,279</u>	<u>\$ 150,518</u>	<u>\$ 134,096</u>
Weighted average shares outstanding - Basic	48,772	48,198	48,615	47,992
Effect of dilutive securities:				
Stock options, restricted stock units, performance share units and restricted stock	890	845	984	974
Weighted average shares outstanding - Diluted	<u>49,662</u>	<u>49,043</u>	<u>49,599</u>	<u>48,966</u>
Earnings per share from continuing operations attributable to common shareholders				
Basic	\$ 0.90	\$ 1.08	\$ 2.03	\$ 2.18
Diluted	\$ 0.88	\$ 1.06	\$ 1.99	\$ 2.14
Basic, excluding non-GAAP adjustments	\$ 1.66	\$ 1.48	\$ 3.10	\$ 2.79
Diluted, excluding non-GAAP adjustments	\$ 1.63	\$ 1.45	\$ 3.03	\$ 2.74

- (1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP REVENUE GROWTH**  
**TO NON-GAAP REVENUE GROWTH, ORGANIC (UNAUDITED) <sup>(1)</sup>**

<b>Three Months Ended June 29, 2019</b>	<b><u>Total CRL</u></b>	<b><u>RMS Segment</u></b>	<b><u>DSA Segment</u></b>	<b><u>MS Segment</u></b>
Revenue growth, reported	12.3 %	4.3 %	17.1 %	7.0 %
Decrease (increase) due to foreign exchange	1.9 %	2.5 %	1.2 %	3.1 %
Contribution from acquisitions <sup>(2)</sup>	(5.7)%	—%	(9.6)%	(0.3)%
<b>Non-GAAP revenue growth, organic <sup>(3)</sup></b>	<b><u>8.5 %</u></b>	<b><u>6.8 %</u></b>	<b><u>8.7 %</u></b>	<b><u>9.8 %</u></b>

<b>Six Months Ended June 29, 2019</b>	<b><u>Total CRL</u></b>	<b><u>RMS Segment</u></b>	<b><u>DSA Segment</u></b>	<b><u>MS Segment</u></b>
Revenue growth, reported	16.9 %	3.3 %	25.3 %	9.9 %
Decrease (increase) due to foreign exchange	2.4 %	2.8 %	1.6 %	3.8 %
Contribution from acquisitions <sup>(2)</sup>	(9.7)%	—%	(17.1)%	(0.3)%
<b>Non-GAAP revenue growth, organic <sup>(3)</sup></b>	<b><u>9.6 %</u></b>	<b><u>6.1 %</u></b>	<b><u>9.8 %</u></b>	<b><u>13.4 %</u></b>

- (1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.
- (2) The contribution from acquisitions reflects only completed acquisitions. Manufacturing Support includes an immaterial acquisition of an Australian Microbial Solutions business.
- (3) Organic revenue growth is defined as reported revenue growth adjusted for acquisitions and foreign exchange.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP TO NON-GAAP REVENUE AND EARNINGS PER SHARE (EPS)**  
**Guidance for the Twelve Months Ended December 28, 2019E**

<b>2019 GUIDANCE</b>	<b>CURRENT</b>
Revenue growth, reported	16% - 17%
Less: Contribution from acquisitions <sup>(1)</sup>	8.5% - 9.0%
Add: Negative impact of foreign exchange	1.0% - 1.5%
Revenue growth, organic <sup>(2)</sup>	8.5% - 9.5%
GAAP EPS estimate	\$4.65-\$4.80
Amortization of intangible assets <sup>(3)</sup>	\$1.35-\$1.40
Charges related to global efficiency initiatives <sup>(4)</sup>	~\$0.07
Acquisition-related adjustments <sup>(5)</sup>	\$0.40-\$0.45
Other items <sup>(6)</sup>	~\$0.03
Venture capital investment (gains)/losses <sup>(7)</sup>	(~\$0.09)
Non-GAAP EPS estimate	\$6.45 - \$6.60
Free cash flow <sup>(8)</sup>	\$310 - \$320 million

(1) The contribution from acquisitions reflects only those acquisitions which have been completed.

(2) Organic revenue growth is defined as reported revenue growth adjusted for acquisitions and foreign currency translation.

(3) Amortization of intangible assets includes an estimate of approximately \$0.20 for the impact of the Citoxlab acquisition based on the preliminary purchase price allocation.

(4) These charges, which primarily include severance and other costs, relate primarily to the Company's planned efficiency initiatives. Other projects in support of global productivity and efficiency initiatives are expected, but these charges reflect only the decisions that have already been finalized.

(5) These adjustments are related to the evaluation and integration of acquisitions, and primarily include transaction, advisory, and certain third-party integration costs, as well as certain costs associated with acquisition-related efficiency initiatives. In addition, these adjustments include a charge associated with modification of a purchase option for the remaining 8% equity interest in Vital River. These costs will be partially offset by an anticipated discrete tax benefit.

(6) Other items include third-party costs, net of insurance reimbursements, associated with the remediation of the unauthorized access into the Company's information systems, which was detected in March 2019.

(7) Venture capital investment performance only includes recognized gains or losses. The Company does not forecast future venture capital investment gains or losses.

(8) The reconciliation of 2019 free cash flow guidance is as follows: Cash flow from operating activities of \$480-\$490 million, less capital expenditures of ~\$170 million, equates to free cash flow of \$310-\$320 million.



**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF FREE CASH FLOW (NON-GAAP) <sup>(1)</sup>**  
(dollars in thousands)

	<u>Three Months Ended</u>		<u>Six Months Ended</u>		<u>Fiscal Year Ended</u>
	June 29, 2019	June 30, 2018	June 29, 2019	June 30, 2018	December 28, 2019E
					<b>including Citoxlab</b>
Net cash provided by operating activities	\$ 129,553	\$ 123,872	\$ 144,412	\$ 183,923	\$480,000-\$490,000
Less: Capital expenditures	(24,781)	(21,213)	(41,512)	(48,939)	(~170,000)
Free cash flow	<u>\$ 104,772</u>	<u>\$ 102,659</u>	<u>\$ 102,900</u>	<u>\$ 134,984</u>	<u>\$310,000-\$320,000</u>

(1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP TO NON-GAAP REVENUE GROWTH, ORGANIC (UNAUDITED)**  
**EXCLUDING THE IMPACT OF FOREIGN EXCHANGE, ACQUISITIONS, CDMO DIVESTITURE,**  
**AND 53rd WEEK <sup>(1)</sup>**

	Twelve Months Ended			
	December 29, 2018	December 30, 2017	December 31, 2016	December 26, 2015
Revenue growth, reported	22.0%	10.5%	23.3%	5.1%
Impact of foreign exchange	(1.3%)	—	1.5%	5.3%
Impact of acquisitions <sup>(2)</sup>	(12.1%)	(6.0%)	(15.8%)	(4.0%)
Impact of CDMO divestiture <sup>(3)</sup>	0.1%	0.8%	—	—
Impact of 53rd week	—	1.4%	(1.3%)	—
<b>Non-GAAP revenue growth, organic</b>	<b>8.7%</b>	<b>6.7%</b>	<b>7.7%</b>	<b>6.5%</b>

(1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

(2) The contribution from acquisitions reflects only completed acquisitions. 2018 revenue includes an immaterial acquisition of an Australian Microbial Solutions business.

(3) The CDMO business, which was acquired as part of WIL Research on April 4, 2016, was divested on February 10, 2017. This adjustment represents the revenue from the CDMO business for all applicable periods.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP TO NON-GAAP OPERATING INCOME <sup>(1)</sup>**  
(dollars in thousands)

	<b>Twelve Months Ended</b>			
	<b>December 29, 2018</b>	<b>December 30, 2017 <sup>(2)</sup></b>	<b>December 31, 2016 <sup>(2)</sup></b>	<b>December 26, 2015 <sup>(2)</sup></b>
Revenue	\$ 2,266,096	\$ 1,857,601	\$ 1,681,432	\$ 1,363,302
Operating income	331,383	288,282	237,552	205,090
Operating income as a % of revenue	14.6 %	15.5 %	14.1 %	15.0 %
Add back:				
Amortization related to acquisitions	64,831	41,370	42,746	29,374
Severance and executive transition costs	8,680	3,278	8,472	6,173
Acquisition-related adjustments <sup>(3)</sup>	19,184	6,687	21,887	14,513
Government billing adjustment and related expenses	—	150	634	477
Operating losses <sup>(4)</sup>	—	—	—	5,517
Site consolidation costs, impairments and other items	864	18,645	11,849	2,240
Total non-GAAP adjustments to operating income	\$ 93,559	\$ 70,130	\$ 85,588	\$ 58,294
Operating income, excluding non-GAAP adjustments	\$ 424,942	\$ 358,412	\$ 323,140	\$ 263,384
Non-GAAP operating income as a % of revenue	18.8 %	19.3 %	19.2 %	19.3 %

(1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

(2) Prior-year operating income and operating income margin amounts have been recast to reflect the retrospective adoption of a new accounting standard in 1Q18 (ASU 2017-07).

(3) These adjustments are related to the evaluation and integration of acquisitions, which primarily include transaction, third-party integration, and certain compensation costs, and fair value adjustments associated with contingent consideration.

(4) This item includes operating losses related primarily to the Company's DSA facility in Massachusetts.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP EARNINGS TO NON-GAAP EARNINGS <sup>(1)</sup>**  
(dollars in thousands, except for per share data)

	Twelve Months Ended			
	December 29, 2018	December 30, 2017	December 31, 2016	December 26, 2015
Net income attributable to common shareholders	\$ 226,373	\$ 123,355	\$ 154,765	\$ 149,313
Less: Income (loss) from discontinued operations, net of income taxes	1,506	(137)	280	(950)
Net income from continuing operations attributable to common shareholders	224,867	123,492	154,485	150,263
Add back:				
Amortization related to acquisitions	64,831	41,370	42,746	29,374
Severance and executive transition costs	8,680	3,278	8,472	6,173
Operating losses <sup>(2)</sup>	—	—	—	5,517
Acquisition-related adjustments <sup>(3)</sup>	19,184	6,687	22,702	14,513
Government billing adjustment and related expenses	—	150	634	477
Site consolidation costs, impairments and other items	864	18,645	11,849	2,240
Gain on divestiture of CDMO business	—	(10,577)	—	—
Write-off of deferred financing costs and fees related to debt financing	5,060	—	987	721
Reversal of an indemnification asset associated with acquisition and corresponding interest <sup>(4)</sup>	—	—	54	10,411
Gain on bargain purchase <sup>(5)</sup>	—	(277)	15	(9,837)
Debt forgiveness associated with a prior acquisition <sup>(6)</sup>	—	(1,863)	—	—
Venture capital gains	(15,928)	(22,657)	(10,285)	(3,824)
Tax effect of non-GAAP adjustments:				
Tax effect from U.S. Tax Reform <sup>(7)</sup>	(5,450)	78,537	—	—
Tax effect from divestiture of CDMO business	(1,000)	17,705	—	—
Reversal of uncertain tax position associated with acquisition and corresponding interest <sup>(4)</sup>	—	—	—	(10,411)
Tax effect of the remaining non-GAAP adjustments	(17,166)	(12,286)	(18,744)	(18,672)
Net income from continuing operations attributable to common shareholders, excluding non-GAAP adjustments	\$ 283,942	\$ 242,204	\$ 212,915	\$ 176,945
Weighted average shares outstanding - Basic	47,947	47,481	47,014	46,496
Effect of dilutive securities:				
Stock options, restricted stock units, performance share units, and contingently issued restricted stock	1,071	1,083	944	1,138
Weighted average shares outstanding - Diluted	49,018	48,564	47,958	47,634
Earnings per share from continuing operations attributable to common shareholders				
Basic	\$ 4.69	\$ 2.60	\$ 3.28	\$ 3.23
Diluted	\$ 4.59	\$ 2.54	\$ 3.22	\$ 3.15
Basic, excluding non-GAAP adjustments	\$ 5.92	\$ 5.10	\$ 4.53	\$ 3.81
Diluted, excluding non-GAAP adjustments	\$ 5.80	\$ 4.99	\$ 4.44	\$ 3.71

(1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

(2) This item includes operating losses related primarily to the Company's DSA facility in Massachusetts.

(3) These adjustments are related to the evaluation and integration of acquisitions, which primarily include transaction, third-party integration, and certain compensation costs, and fair value adjustments associated with contingent consideration. In fiscal year 2016, the amount also includes a \$1.5 million charge recorded in connection with the modification of the option to purchase the remaining 13% equity interest in Vital River, partially offset by a \$0.7 million gain on remeasurement of previously held equity interest in an entity acquired in a step acquisition.

(4) These amounts represent the reversal of an uncertain tax position and an offsetting indemnification asset primarily related to the acquisition of BioFocus.

(5) These amounts relate to the acquisition of Sunrise Farms, Inc. and represents the excess of the estimated fair value of the net assets acquired over the purchase price.

(6) The amount represents the forgiveness of a liability related to the acquisition of Vital River.

(7) The amount for fiscal year 2017 includes a \$78.5 million estimate for the impact of the enactment of U.S. Tax Reform legislation. The estimated impact of U.S. Tax Reform consists of the one-time transition tax on unrepatriated earnings (also known as the toll tax), withholding and state taxes related to the Company's withdrawal of its indefinite reinvestment assertion regarding unremitted earnings, and the revaluation of U.S. federal net deferred tax liabilities. The final impact of U.S. Tax Reform may differ from these estimates, due to, among other things, changes in interpretations, analysis, and assumptions made by the Company, additional guidance that may be issued by regulatory agencies, and any updated or changes to estimates the Company utilized to calculate the transition tax impact.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF FREE CASH FLOW (NON-GAAP) <sup>(1)</sup>**

	Twelve Months Ended			
	December 29, 2018	December 30, 2017	December 31, 2016 <sup>(3)</sup>	December 26, 2015 <sup>(3)</sup>
Net cash provided by operating activities	\$ 441,140	\$ 318,074	\$ 316,899	\$ 306,833
Add back: Tax impact of CDMO divestiture <sup>(2)</sup>	—	6,500	—	—
Less: Capital expenditures	(140,054)	(82,431)	(55,288)	(63,252)
Free cash flow	<u>\$ 301,086</u>	<u>\$ 242,143</u>	<u>\$ 261,611</u>	<u>\$ 243,581</u>

(1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

(2) Free cash flow has been adjusted to exclude the cash tax impact related to the divestiture of the CDMO business, which is recorded in Cash Flows relating to Operating Activities, because divestitures are outside of our normal operations, the corresponding cash proceeds from the divestiture are reflected in Cash Flows relating to Investing Activities, and the impact of the CDMO divestiture is large, which can adversely affect the comparability of our results on a period-to-period basis.

(3) Cash flow amounts have been recast to reflect the retrospective adoption of new accounting standards in 1Q17 (ASU 2016-09, ASU 2016-15, ASU 2016-18).



**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GAAP TAX RATE TO NON-GAAP TAX RATE <sup>(1)</sup>**  
**(dollars in thousands)**

	<b>Twelve Months Ended</b>			
	<b>December 29, 2018</b>	<b>December 30, 2017</b>	<b>December 31, 2016</b>	<b>December 26, 2015</b>
Income from continuing operations before income taxes & noncontrolling interest	\$ 281,681	\$ 296,955	\$ 222,921	\$ 195,428
Add back:				
Amortization of intangible assets related to acquisitions	64,831	41,370	42,746	29,374
Severance related to cost-savings actions	8,680	3,278	8,472	6,173
Government billing adjustment and related expenses	-	150	634	477
Site consolidation costs, impairments and other items	864	18,645	11,849	2,240
Operating losses	-	-	-	5,517
Gain on CDMO divestiture	-	(10,577)	-	-
Costs associated with the evaluation and integration of acquisitions	19,184	6,687	22,702	14,513
Reversal of an indemnification asset associated with acquisition and corresponding interest	-	-	54	10,411
Write-off of deferred financing costs and fees related to debt refinancing	5,060	-	987	721
Debt forgiveness associated with a prior acquisition	-	(1,863)	-	-
Venture capital gains	(15,928)	(22,657)	(10,285)	(3,824)
Gain on bargain purchase	-	(277)	15	(9,837)
Income before income taxes & noncontrolling interest, excluding specified charges (Non-GAAP)	<u>\$ 364,372</u>	<u>\$ 331,711</u>	<u>\$ 300,095</u>	<u>\$ 251,193</u>
Provision for income taxes	\$ 54,463	\$ 171,369	\$ 66,835	\$ 43,391
Tax effect from U.S. Tax Reform	5,450	(78,537)	-	-
Tax effect from CDMO divestiture	1,000	(17,705)	-	-
Tax effect from reversal of uncertain tax position associated with acquisition and corresponding interest	-	-	-	10,411
Tax effect on amortization, severance and other charges	17,166	12,286	18,744	18,672
Provision for income taxes (Non-GAAP)	<u>\$ 78,079</u>	<u>\$ 87,413</u>	<u>\$ 85,579</u>	<u>\$ 72,474</u>
Tax rate (GAAP)	19.3%	57.7%	30.0%	22.2%
Tax rate, excluding specified charges (Non-GAAP)	21.4%	26.4%	28.5%	28.9%

(1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.

**CHARLES RIVER LABORATORIES INTERNATIONAL, INC.**  
**RECONCILIATION OF GROSS/NET LEVERAGE RATIO, INCLUDING GAAP NET INCOME TO ADJUSTED EBITDA <sup>(1)</sup>**  
(dollars in thousands)

	June 29, 2019	December 29, 2018	December 30, 2017	December 31, 2016	December 26, 2015	December 27, 2014	December 28, 2013	December 29, 2012
<b>DEBT <sup>(2)</sup>:</b>								
Total Debt & Finance Leases	\$ 2,074,342	\$ 1,668,014	\$ 1,145,104	\$ 1,235,009	\$ 863,031	\$ 777,863	\$ 663,789	\$ 666,520
Plus: Other adjustments per credit agreement	719	3,033	298	3,621	1,370	2,828	9,787	9,680
Total Indebtedness per credit agreement	2,075,062	1,671,047	1,145,402	1,238,630	864,401	780,691	673,576	676,200
Less: Cash and cash equivalents	(200,589)	(195,442)	(163,794)	(117,626)	(117,947)	(160,023)	(155,927)	(109,685)
Net Debt	\$ 1,874,473	\$ 1,475,605	\$ 981,608	\$ 1,121,004	\$ 746,454	\$ 620,668	\$ 517,649	\$ 566,515
	June 29, 2019	December 29, 2018	December 30, 2017	December 31, 2016	December 26, 2015	December 27, 2014	December 28, 2013	December 29, 2012
<b>ADJUSTED EBITDA <sup>(2)</sup>:</b>								
Net income attributable to common shareholders	\$ 218,895	\$ 226,373	\$ 123,355	\$ 154,765	\$ 149,313	\$ 126,698	\$ 102,828	\$ 97,295
Adjustments:								
Less: Aggregate non-cash amount of nonrecurring gains	—	—	—	(685)	(9,878)	(2,048)	—	—
Plus: Interest expense	73,600	65,258	29,777	27,709	15,072	11,950	20,969	33,342
Plus: Provision for income taxes	52,540	54,996	171,369	66,835	43,391	46,685	32,142	24,894
Plus: Depreciation and amortization	179,677	161,779	131,159	126,658	94,881	96,445	96,636	81,275
Plus: Non-cash nonrecurring losses	244	559	17,716	6,792	10,427	1,615	4,202	12,283
Plus: Non-cash stock-based compensation	52,661	47,346	44,003	43,642	40,122	31,035	24,542	21,855
Plus: Permitted acquisition-related costs	24,169	19,181	6,687	22,653	13,451	6,285	1,752	3,676
Plus: Pro forma EBITDA adjustments for permitted acquisitions	37,229	15,648	690	18,573	9,199	10,787	—	253
Adjusted EBITDA (per the calculation defined in compliance certificates)	\$ 639,015	\$ 591,140	\$ 524,756	\$ 466,942	\$ 365,978	\$ 329,452	\$ 283,071	\$ 274,873
	June 29, 2019	December 29, 2018	December 30, 2017	December 31, 2016	December 26, 2015	December 27, 2014	December 28, 2013	December 29, 2012
<b>LEVERAGE RATIO:</b>								
Gross leverage ratio per credit agreement (total debt divided by adjusted EBITDA)	3.25x	2.83x	2.2x	2.7x	2.4x	2.4x	2.4x	2.5x
Net leverage ratio (net debt divided by adjusted EBITDA)	2.9x	2.5x	1.9x	2.4x	2.0x	1.9x	1.8x	2.1x

- (1) Charles River management believes that supplementary non-GAAP financial measures provide useful information to allow investors to gain a meaningful understanding of our core operating results and future prospects, without the effect of often-one-time charges and other items which are outside our normal operations, consistent with the manner in which management measures and forecasts the Company's performance. The supplementary non-GAAP financial measures included are not meant to be considered superior to, or a substitute for results of operations prepared in accordance with U.S. GAAP. The Company intends to continue to assess the potential value of reporting non-GAAP results consistent with applicable rules, regulations and guidance.
- (2) Pursuant to the definition in its credit agreement dated March 26, 2018, the Company has defined its pro forma leverage ratio as total debt divided by adjusted EBITDA for the trailing-twelve-month period following the close of, and pro forma for, the acquisition of CTL International. Adjusted EBITDA represents net income, prepared in accordance with accounting principles generally accepted in the U.S. (GAAP), adjusted for interest, taxes, depreciation and amortization, and certain items that management believes are not reflective of the operational performance of the business. These adjustments include, but are not limited to, acquisition-related expenses including transaction and advisory costs; asset impairments; changes in fair value of contingent consideration obligations; employee stock compensation; historical EBITDA of companies acquired during the period; and other items identified by the Company.

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