Lonza Capital Markets Day 2018

Staying Ahead

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Staying Ahead
Lonza Capital Markets Day 2018

Agenda

Lonza Pharma & Biotech overview

Delivering on our 2016 promises

Anticipating future trends to stay ahead, innovating for future manufacturing

Outlook
Corporate

Lonza Pharma & Biotech Overview
Lonza Pharma & Biotech

Our global reach and expertise across modalities help to make our vision a reality

Chemical technologies
small molecules, HPAPI, cytotoxics, intermediates

Bio-conjugates

Biologics
mammalian and microbial expression systems, cell, gene and viral therapy

Across
3 continents
12 sites
4,514 FTE

Drug substance

Discovery
basic research
disease discovery

Development
drug discovery
drug development

Manufacture
clinical supply
commercial supply

Distribution
fill & finish
marketing sales distribution

Capital Markets Day 2018 | 25 September 2018
Lonza Pharma & Biotech

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**Chemical technologies**
- small molecules,
- HPAPI, cytotoxics, intermediates

**Bio-conjugates**

**Biologics**
- mammalian and microbial expression systems, cell, gene and viral therapy

**Oral dosage forms & delivery systems**

**Parenteral drug product services**

**Across 3 continents**
- 29 sites
- 8,900 FTE

**Drug substance**

**Drug product**

**Discovery**
- basic research
- disease discovery

**Development**
- drug discovery
- drug development

**Manufacture**
- clinical supply
- commercial supply

**Distribution**
- fill & finish
- marketing sales distribution

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Lonza Pharma & Biotech has the market-leading position as CDMO, supporting more than 800 therapies in 2017.

Lonza supported >300 Large-molecule therapies\(^1\) in 2017

Lonza supported >500 Small-molecule therapies\(^2\) in 2017

\(^1\) Includes mammalian and microbially expressed medicines, bioconjugates, cell and gene therapy

\(^2\) Includes chemicals, highly potent API, peptides; includes dosage forms and delivery systems programs
Market Perceptions

Lonza Pharma & Biotech is considered to be a partner of choice in the industry

85% of biopharma industry leaders consider Lonza an industry leader in the contract development and manufacturing (CDMO) space\(^1\)

80% of biopharma industry leaders consider Lonza for requesting an offer\(^1\)

\(^1\) McKinsey expert survey, November 2017
Financial Performance

Our current position of strength is reflected in our financial performance and positive momentum

Lonza Pharma & Biotech CORE EBITDA Development

CHF million

- High demand across all businesses, especially strong development in commercial mammalian & in chemical manufacturing
- Sustainable & balanced customer portfolio
- Positive continued momentum expected across businesses in 2018

1 Lonza standalone (excl. Capsugel and excl. IFRS 15 restatement)
Delivering on Our 2016 Promises
Two Areas of Strategic Focus
How we have delivered over the last two years

MAIN FOCUS AREAS

Expanding our value chain
Across small molecules & biologics

Innovation for manufacturing
- Technologies
- Business models
Two Areas of Strategic Focus
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Delivering for Customers Along the Value Chain

Capsugel – A transformative and successful integration

- Increased customer base
- Offerings along the value chain
- A differentiated offering in medicines requiring specialized handling (cytotoxics including highly potent API)
- Extended R&D capabilities

**Sales synergies in new small-molecule contracts 2018 (ytd)**

- **13%** Cross-selling services
- **13%** Better commercial terms
- **17%** New partnership models
- **57%** new contracts due to offering an extended value chain
Delivering for Customers Along the Value Chain

Extending parenteral services for biologics further differentiates Lonza from competition

Lonza Parenteral Drug Product Services –
A successful, organic build

- **Science-driven**: Technical capabilities, regulatory and industrial expertise; R&D activities and academic collaborations
- **Proprietary technologies** available to address most critical drug topics, e.g. particulates, surfactants, extractables, container and device testing
- **Customer & patient centric**: Formulation and choice of device based on patient safety and usability, differentiate customers from competition
- **Solutions provider**: Customers outsource complex projects to Lonza; we anticipate issues and develop custom solutions
- **Reduced complexity, speed to market**
Two Areas of Strategic Focus
How we have delivered over the last two years

MAIN FOCUS AREAS

Expanding our value chain
Across small molecules & biologics

Innovation for manufacturing
- Technologies
- Business models
Overview of Recent Key Investments

Growth projects enable Lonza to evolve our offering with new technologies and new business models.

Business models

- Faster, agile, commercial manufacturing
- Exclusive licence Akous for in vivo gene therapy (Anc AAV\(^1\))
- Customer monosuite (biologics)
- New gene to BLA\(^2\)

Technologies

- Dosage & delivery (small molecules) Acquisition Capsugel & Micromacinazione
- U.S. biologics clinical development (Hayward, CA, USA)
- 2K biologics single-use (Singapore, SG)
- Cell & gene therapy (Houston, TX, USA)
- 6K mid-scale hybrid biologics (Portsmouth, NH, USA)
- Collaborative Innovation Center opening (Haifa, IL)

Customer monoplant (small molecules)

Customer monosuite (biologics)

1. Anc AAV: Ancestral Adeno Associated Virus
2. BLA: Biologics License application
3. API: Active pharmaceutical ingredient
Anticipating Future Trends to Stay Ahead, Innovating for Future Manufacturing
3 KEY TRENDS

The changing face of the biotech industry

More complex & targeted medicines

Cell and gene therapies advancing to commercial stage
Key Market Trends

Anticipating new trends enables Lonza to capture new opportunities

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The changing face of the biotech industry

Strong funding encourages start-ups to stay in the game - They face a new set of challenges as a result

Biotech funding (USD million) and deals

Source: CB Insights, January 2018, funding of private and corporate VCs and private equity, excluding angel investors and other funding sources
Specific Needs of Biotech

Solving the challenges small companies with a commercialization strategy face

- Speed to clinic & market
- Flexibility to manage uncertainty
- Simplified supply chain
- Risk management across the product lifecycle
Ibex™ Dedicate

Lonza’s first offering for dedicated manufacturing within an established infrastructure

Ibex™ Dedicate

Custom solutions for clinical and commercial needs

From gene to Phase I

Phase II to commercial
Ibex™ Design and Ibex™ Develop

Two new offerings from gene to commercial designed with smaller companies in mind

From gene to Phase I

Phase II to commercial

Custom solutions for clinical and commercial needs
End-to-End Product Lifecycle Management on One Site

Innovative solutions for drug substance and drug product that complement Lonza’s global network

IND¹ Pre-clinical
IND¹ Phase 1
BLA² Phase 2
BLA² Phase 3
BLA² Commercial

Ibex™ Design

Ibex™ Develop

Ibex™ Dedicate

1 IND: Investigational New Drug
2 BLA: Biologics License application
A Glance into the Future of Biomanufacturing

Investing to meet evolving needs of our customers in development and production
Key Market Trends

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Increasing Complexity in Biologics

Novel disease targets and biological mechanisms driving diversification of molecular formats

Key examples of next-generation mAbs

- ADCs
- Bi-specifics
- Fragments
- Constructs e.g. BiTE®

26% of the pre-clinical and phase I biologics pipeline are next-generation antibodies (including ADCs)

Global next-generation mAb sales projected to grow

- 2017: $1.8B
- 2024F: $14B
- 34% CAGR

1 BiTE®: Bispecific T cell Engager
2 Lonza Market Intelligence and Citeline
3 Lonza market intelligence; Evaluate Pharma 2018
Increasing Complexity in Biologics

Complex biologics require a customized approach and advanced expression systems

Lonza’s differentiated offering for next-generation antibodies:

- **Specialized expression systems** for next-generation mAbs including **bi-specific antibodies** and **antibody drug conjugates** (based on proprietary and established GS Gene Expression System®)

- Experienced teams offer **customized clinical development and manufacturing** of next-generation mAbs in Slough (UK)

- Mid-scale hybrid manufacturing in Portsmouth, NH (USA) designed around increased complexity and lower volumes: Combination of 6K bioreactors with “plug and play” downstream provides a solution for a variety of different molecules & processes

- **Ibex™ Dedicate** offers fast and flexible dedicated capacity. Biologics technology can be implemented in modular suites; customers can benefit from existing expertise in Visp (CH)
Small-Molecule Pipeline Also Shows Increasing Complexity

Both API drug product intermediates and drug product require more specialized handling

55% of new compounds need specialized handling

- Specialized high-containment assets and highly trained personnel to handle highly potent APIs (HPAPI) and cytotoxics from drug substance to drug product:
  1. Visp (CH) (all scales from preclinical to commercial) for drug substance
  2. Bend, OR (USA) and Monteggio (CH) for drug product

70% of pipeline compounds have solubility issues

- Bioavailability enhancement through particle engineering requires a broad technology portfolio to address all issues:
  - Liquid-based formulation
  - Spray-dry dispersion
  - Micronization
  - Inhalation
  - Multi-particulates (e.g. pediatric formulations)

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1 PharmSource and internal analysis
2 The innovator pipeline: BA challenges and advanced oral drug delivery opportunities, American Pharmaceutical Review, April 2013, Ralph Lipp, PhD
Key Market Trends
Anticipating new trends enables Lonza to capture new opportunities

3 KEY TRENDS

- The changing face of the biotech industry
- More complex & targeted medicines
- Cell and gene therapies advancing to commercial stage
Evolution of Cell & Gene Therapy Pipeline
Increasing numbers of therapies facing the challenges of commercialization

Number of global cell and gene therapy products over time

- 47 Products launched up to 2018 (ytd)
- 56 Products currently in phase 3
- 269 Products currently in phase 2

Source: Citeline, global cell and gene therapy pipeline
Current Manufacturing Challenges in Cell and Gene Therapy

Lonza combines a global network with expertise and technology to enable commercialization

**Cell & gene manufacturing challenges**

- **Diversity** of underlying technology and actual products
- **Lack of industrialized** manufacturing processes and platform technologies
- **Different asset requirements** based on technology/process
- **Complex and evolving regulatory** environment

**Lonza solutions for sustainable supply**

- Solutions for **batch viral, allogeneic** and **autologous** manufacturing. Experience handling a variety of cell types and vectors.
- Standardized **platforms and technologies**, experienced **process development** team to take customers through to commercial supply
- **Flexible, modular assets** allow for rapid and customized build outs. **Global network** (US, EU, Asia)
- Extensive experience in **expedited programs**, globally
Lonza Enabling Technologies for Cell and Gene Therapy
Applying innovation at all stages of the manufacturing process

- **Autologous cell therapy manufacturing automation**
- **Viral & non-viral genetic modification**
- **IPSC generation, differentiation & expansion**
- **Allogeneic cell therapy 2D & 3D platforms**
- **Synthetic AAV vector platform**

- **Octane Cocoon™**
- **4D-Nucleofector®M LV unit**
- **Induced pluripotent stem cells**
- **200L Biostat' STR**
- **AncAAV (Ancestral) vectors**
Key Market Trends

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Outlook
Positive Outlook for the Future

We are committed to staying ahead and remaining an industry leader

Strong foundation of Lonza Pharma & Biotech business

- Breadth of services covering 6 modalities\(^1\) and expanded value chain for tailored customer solutions
- Strong scientific base & innovation
- Strong track record of success based on many productive partnerships and projects with our customers

(Unchanged) strategic priorities

- Anticipating key trends to stay competitive
- Targeted investments for future growth
- Delivering financial results and sustainable growth

Our ambition

- Remain an industry leader in the CDMO\(^2\) space
- Drive innovation in drug development, manufacturing, and delivery
- Enable customers to deliver for patients efficiently and cost-effectively
- Continue strong momentum:
  - Grow sales high-single digits
  - Sustain >30+% CORE EBITDA margin

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\(^1\) Small molecules, mammalian, microbial, bio-conjugates, cell therapy, viral therapy
\(^2\) CDMO = Clinical Development and Manufacturing Organization

CORE definition: See appendix
Delivering the medicines of tomorrow, today™
Thank you for your attention.
Lonza believes that disclosing CORE results of the Group’s performance enhances the financial markets’ understanding of the company because the CORE results enable better comparison across years.

Therefore, the CORE results exclude exceptional expenses and income related to e.g. restructuring, environmental-remediation, acquisitions and divestitures, impairments and amortization of acquisition-related intangible assets, which can differ significantly from year to year.

For this same reason, Lonza uses these CORE results in addition to IFRS as important factors in internally assessing the Group’s performance.

In Lonza’s 2018 Half-Year Results report, the reconciliation of IFRS to CORE results provides further details on the adjustments.
Lonza Group Ltd has its headquarters in Basel, Switzerland, and is listed on the SIX Swiss Exchange. It has a secondary listing on the Singapore Exchange Securities Trading Limited (‘SGX-ST’). Lonza Group Ltd is not subject to the SGX-ST’s continuing listing requirements but remains subject to Rules 217 and 751 of the SGX-ST Listing Manual.

Forward-looking statements contained herein are qualified in their entirety as there are certain factors that could cause results to differ materially from those anticipated. Any statements contained herein that are not statements of historical fact (including statements containing the words “outlook,” “believes,” “plans,” “anticipates,” “expects,” “estimates” and similar expressions) should be considered to be forward-looking statements. Investors are therefore cautioned that all forward-looking statements involve risks and uncertainty. A number of important factors that could cause actual results or events to differ materially from those indicated by such forward-looking statements, including the timing and strength of new product offerings; pricing strategies of competitors; the company’s ability to continue to receive adequate products from its vendors on acceptable terms, or at all, and to continue to obtain sufficient financing to meet its liquidity needs; difficulty to maintain relationships with employees, customers and other business partners; and changes in the political, social and regulatory framework in which the company operates, or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional or national basis. In particular, the assumptions underlying Outlook 2018 and Mid-Term Guidance 2022 herein may not prove to be correct. The statements in Outlook 2018 and Mid-Term Guidance 2022 constitute forward-looking statements and are not guarantees of future financial performance. Lonza’s actual results of operations could deviate materially from those set forth in Outlook 2018 and Mid-Term Guidance 2022 as a result of the factors described above or other factors. Investors should not place undue reliance on the statements in Outlook 2018 and Mid-Term Guidance 2022. Except as otherwise required by law, Lonza disclaims any intention or obligation to update any forward-looking statements as a result of developments occurring after this presentation was made.