Meet Novartis Management
Novartis Group
May 31, 2017
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Neither can there be any guarantee that Novartis will be able to realize any of the potential strategic benefits, synergies or opportunities as a result of the significant reorganizations of recent years, including the creation of the Pharmaceuticals and Oncology business units to form the Innovative Medicines Division, the creation of the Global Drug Development organization and Novartis Operations (including Novartis Technical Operations and Novartis Business Services), the transfer of the Ophthalmic Pharmaceuticals products of our Alcon Division to the Innovative Medicines Division, the transfer of selected mature, non-promoted pharmaceutical products from the Innovative Medicines Division to the Sandoz Division, and the transactions with GSK, Lilly and CSL. Neither can there be any guarantee that shareholders will achieve any particular level of shareholder returns. 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Key Messages

1. R&D is at the core of the company and central to our strategy. We are building depth in key therapeutic areas, while preserving flexibility to follow the science.

2. We are focused on ensuring world-class commercial execution, and leveraging our scale to build a stronger company for the future.

3. Our capital allocation framework reflects a clear focus on sustainable shareholder value creation.
## Agenda

**Strengthening innovation**

- Ensuring world-class commercial execution
- Building a stronger company for the future
- Allocating capital to build shareholder value
New operating model puts R&D at the center of the company
Our focus on R&D has delivered a broad and deep pipeline

175+
Projects in the clinic

90+
New molecular entities in the clinic

40
Potential filings in US and EU 2017-2020

16
Breakthrough Therapy designations\(^1\)

#1
In US/EU approvals past 10 years\(^2\)

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1. Since the introduction of Breakthrough Designation pathway by the FDA, Novartis pipeline included a total of 16 breakthrough designations cumulatively of which 13 are currently actively under development or in approved indications. Includes products in-licensed (with BTD granted prior to the acquisition of the asset) or out-licensed (with BTD granted to Novartis prior to divestment)

2. In number of new molecular entities (NMEs) approved including fixed dose combinations 2007-2016
### Progressing late-stage development of potential blockbusters¹

<table>
<thead>
<tr>
<th>Therapeutic area</th>
<th>Molecule</th>
<th>Indication</th>
<th>MoA</th>
<th>Exp. pivotal trial readout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oncology</strong></td>
<td>LEE011</td>
<td>HR+ advanced or metastatic breast cancer</td>
<td>CDK4/6 inhibitor</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Kisqail®, ribociclib</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>CTL019</td>
<td>r/r B-Cell ALL, DLBCL</td>
<td>CAR-T</td>
<td>Q2 2017²</td>
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<tr>
<td></td>
<td>CAR-T</td>
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<tr>
<td></td>
<td>SEG101</td>
<td>Sickle cell pain crises</td>
<td>Anti-P-selectin</td>
<td>2020</td>
</tr>
<tr>
<td></td>
<td>crizanlizumab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cardio-Metabolic</strong></td>
<td>LCZ696</td>
<td>Heart failure with preserved EF</td>
<td>ARNI</td>
<td>2019</td>
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<tr>
<td></td>
<td>Entresto®</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>ACZ885</td>
<td>CV risk reduction</td>
<td>Anti-IL1β</td>
<td>H2 2017</td>
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<tr>
<td></td>
<td>canakinumab</td>
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<td></td>
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<tr>
<td><strong>Neuroscience</strong></td>
<td>OMB157</td>
<td>Relapsing multiple sclerosis</td>
<td>CD20</td>
<td>2019</td>
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<tr>
<td></td>
<td>ofatumumab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BAF312</td>
<td>Relapsing multiple sclerosis</td>
<td>S1P receptor modulator</td>
<td>✓</td>
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<tr>
<td></td>
<td>sipimod²</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AMG 334</td>
<td>Prophylaxis of migraine</td>
<td>CGRP receptor antagonist</td>
<td>✓</td>
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<tr>
<td></td>
<td>erenumab²</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Immunology &amp; Dermatology</strong></td>
<td>AIN457</td>
<td>Non-radiographic axial SpA</td>
<td>Anti-IL17A</td>
<td>2018</td>
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<tr>
<td></td>
<td>Cosentyx®</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Respiratory</strong></td>
<td>QVM149</td>
<td>Asthma</td>
<td>LABA + LAMA + ICS</td>
<td>2018</td>
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<tr>
<td></td>
<td>indacaterol, glycopyrronium, mometasone</td>
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<tr>
<td></td>
<td>QAW039</td>
<td>Asthma</td>
<td>CRTh2 antagonist</td>
<td>2019</td>
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<tr>
<td></td>
<td>fevipirant</td>
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<tr>
<td><strong>Ophthalmology</strong></td>
<td>RTH258</td>
<td>Neovascular AMD</td>
<td>Anti-VEGF (scFv)</td>
<td>H1 2017</td>
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<tr>
<td></td>
<td>brolucizumab</td>
<td></td>
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<tr>
<td><strong>Biosimilars</strong></td>
<td>Multiple</td>
<td>Multiple</td>
<td>Multiple</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

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¹ Blockbuster potential refers to specified indication  
² Ped. r/r B-cell ALL filed and priority review granted; Breakthrough Therapy designation granted for DLBCL  
³ Next steps being evaluated in consultations with health authorities  
⁴ In collaboration with Amgen; Novartis has AMG 334 rights outside of Japan and co-commercialization in the US
Building depth in key therapeutic areas...

Sample therapeutic areas

<table>
<thead>
<tr>
<th>Anchor commercial assets</th>
<th>Pipeline assets and opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kisqali® (adjuvant)</td>
<td>Entresto® (pEF, post-acute MI)</td>
</tr>
<tr>
<td>CTL019</td>
<td>ACZ885</td>
</tr>
<tr>
<td>SEG101</td>
<td>APO(a)-L_Rx^1</td>
</tr>
<tr>
<td>18 IO assets</td>
<td>APOCIII-L_Rx^1</td>
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<tr>
<td>ABL001</td>
<td>LHW090</td>
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<tr>
<td>BYL719</td>
<td>LIK066</td>
</tr>
<tr>
<td>INC280</td>
<td>MAA868</td>
</tr>
<tr>
<td>Jakavi® (steroid refractory GvHD)</td>
<td>BAF312</td>
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<tr>
<td></td>
<td>OMB157</td>
</tr>
<tr>
<td></td>
<td>AMG 334</td>
</tr>
<tr>
<td></td>
<td>BYM338</td>
</tr>
<tr>
<td></td>
<td>CNP520</td>
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<tr>
<td></td>
<td>EMA401</td>
</tr>
<tr>
<td></td>
<td>CAD106</td>
</tr>
<tr>
<td></td>
<td>Cosentyx® (NrAxSpA)</td>
</tr>
<tr>
<td></td>
<td>CJM112</td>
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<tr>
<td></td>
<td>LJN452</td>
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<tr>
<td></td>
<td>VAY736</td>
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<tr>
<td></td>
<td>ZPL389</td>
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<tr>
<td></td>
<td>NASH (Conatus / Allergan)</td>
</tr>
<tr>
<td></td>
<td>QGE031</td>
</tr>
</tbody>
</table>

1. Subject to customary closing conditions
...while preserving flexibility to follow the science in early research

Distribution of ~90 New Molecular Entities at NIBR

- Oncology
- Immuno-Oncology
- Ophthalmology
- Respiratory Diseases
- Neuroscience
- Autoimmunity, Transplantation & Inflammation
- Cardiovascular & Metabolism
- Infectious Diseases
- Musculoskeletal

Distribution Pie Chart:
- ONC
- IO
- MSD
- ID
- OPH
- RESP
- CVM
- NEURO
- ATI

[Body Image]

NOVARTIS
Agenda

Strengthening innovation

Ensuring world-class commercial execution

Building a stronger company for the future

Allocating capital to build shareholder value
Pharmaceuticals: Executing well against key launches

Pharmaceuticals Business Unit (BU) grew 6% (cc) in Q1, driven by Cosentyx® & Entresto®

- Q1 sales of USD 410m
- Best-in-class profile across three approved indications
- Opportunity to extend lead in IL17 class in SpA

- Q1 sales of USD 84m
- Expanding prescriber breadth & depth
- US access and affordability significantly improved; investments in place to support further uptake
- FortiHFy clinical studies on track
Oncology: Delivering strong underlying business performance

Excluding Glivec®, Oncology BU grew 7% (cc) in Q1, reflecting underlying strength of portfolio
Sandoz: Building an industry-leading biosimilars business

Driving best-in-class execution on current launches

- **Glatopa®**: 40% share in glatiramer acetate 20mg segment
- **ZARXIO® filgrastim**: #1 position in filgrastim PFS segment

Advancing pipeline to drive future growth

- **Erelzi™**: FDA approval, CHMP positive opinion
- **RIXATHON® rituximab**: CHMP positive opinion
- **Adalimumab**: EU file accepted
- **Infliximab**: EU file accepted
Alcon: Delivering solid growth in two largest segments...

Alcon net sales
FY 2016, USD bn

Contact Lenses +7% (cc) in Q1, driven by continued strength of dailies portfolio

Cataract Consumables +3% (cc) in Q1, benefitting from strong installed base of equipment
...and strengthening IOL innovation and commercial execution

Driving key launches

- Stable supply; service levels at 2-year high
- Increasing training and education

Improving customer focus

- ReSTOR® 2.5D Toric with ACTIVEFOCUS™ launched in US in May
- Developing first truly accommodating IOL
Poised for our next growth phase expected to start in 2018

Illustrative Sales FY 2017–2020

2017

Pharma Growth Drivers

Onco Growth Drivers

Gx Impact

Sales

Sandoz and Alcon

2020

Mainly: Cosentyx® Entresto®

Mainly: New Onco Kisqali® Jakavi®

Mainly: Gilenya® US Afinitor® Ophtha Glivec® Exjade®

Mainly: Biosimilars & Alcon growth
Agenda

- Strengthening innovation
- Ensuring world-class commercial execution
- **Building a stronger company for the future**
- Allocating capital to build shareholder value
On track for delivery of USD 1bn savings by 2020 as announced in 2016

Impact on Operating Income
USD bn, illustrative

- Expected cost synergies: ≥ USD 1bn per year by 2020
- Expected one-time costs: USD ~1.4bn over 5 years

Bulk of savings to come from manufacturing centralization

1. Includes savings from manufacturing centralization and integration of Global Drug Development; excludes savings generated by Novartis Business Services.
Implementing a new operating model for Novartis Technical Operations

From: Divisional silos

- Duplication in manufacturing technologies
- Support functions with different standards and processes
- Distinct supply chain organizations
- Fragmented supplier management

To: Integrated organization

- Shared capacity and integrated technology
- Globally integrated functions with common standards and processes
- Single supply chain organization
- Standardized approach to vendors

Implementation timeline

<table>
<thead>
<tr>
<th>Jul 2016</th>
<th>YE 2016</th>
<th>Today</th>
<th>YE 2017</th>
<th>YE 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration preparation</td>
<td>Integration execution</td>
<td>Transformation planning</td>
<td>Implementation</td>
<td></td>
</tr>
</tbody>
</table>

1. Novartis Technical Operations, which excludes Alcon Surgical and Vision Care manufacturing
Further increasing efficiency in Global Drug Development (GDD)

- 10,000 person integration complete
- Harmonizing processes
- Driving synergies
- Stabilizing Innovative Medicines R&D spend towards 20% of sales in the near term
- Improved alignment with NIBR

GDD Operations
Trial, Technical Development, Regulatory, Safety
Continuing to unlock synergies via Novartis Business Services

Key synergy levers

- **Consolidation** of suppliers to build strategic partnerships
- **Standardization** of services
- Process **simplification** and **automation**
- Selective offshoring to 5 global service centers to further strengthen our capabilities

Despite absorption of employee merit increases, inflation as well as additional investments related to strategic projects, current NBS costs are below original baseline\(^1\)

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1. Baseline from 2014 (at creation of NBS)
Agenda

Strengthening innovation

Ensuring world-class commercial execution

Building a stronger company for the future

Allocating capital to build shareholder value
Allocating capital to build shareholder value

Novartis priorities

- Investments in organic business
- Growing annual dividend in CHF
- Value-creating bolt-ons
- Share buybacks

Create sustainable shareholder value

Target rating
Double-A
Increasing annual dividend in CHF for 20 consecutive years

CAGR 8.9% in CHF and 11.0%\(^1\) in USD

1. Converted at historic exchange rates on the dividend payment date as per Bloomberg
Strengthening pipeline with focus on value-creating bolt-ons

Examples of recent deals

- Ofatumumab
- Xencor
- Admune Therapeutics
- XOMA
- P&O Biofarma
- Surface Oncology
- Aduro Biotech
- Transcend Medical
- Reprixys
- ZiarcO
- Cenicriviroc collaboration
- Encore Vision
- LUBRIS Biopharma
- Ionis Pharmaceuticals
- Allergan
- AMGEN

Evaluation criteria

- ✔ Strategic priorities
- ✔ Financial discipline
- ✔ IRR and value creation

Note: All trademarks are the property of their respective owners

1. Reprixys Pharmaceuticals Corporation was formerly known as Selexys Pharmaceuticals Corporation and is not affiliated with Selexis S.A.
2. Subject to customary closing conditions
3. Option to in-license
Novartis applies strict financial discipline when assessing investments

Key criteria for assessing investments

Strategic

• Strengthen existing businesses
• Enter complementary markets
• Support long-term growth objectives
• Create combined innovation leverage
• Pricing, regulatory and commercial resilience

Financial

• DCF related, e.g. positive NPV, % synergies shared with seller, appropriate value/risk sharing
• CFROI accretive within mid-term period
• IRR hurdle rate
• Other criteria, e.g. EPS accretive for established businesses, enhancing/supporting revenue & margin growth, payback period
Implementing announced leveraged buyback of up to USD 5bn

2017 announced and executed buybacks
USD bn, cumulative¹

- Up to 5.0bn
- 2.0bn

YTD 2017² → FY 2017

- Confidence in future growth prospects
- Active use of strong balance sheet through additional leverage
- External financing of USD 5bn concluded in Q1 at attractive interest rates

¹ Under the existing authority of the 7th share buyback program granted by the AGM in February 2016; graphic excludes buybacks aiming to offset the dilutive impact from equity-based participation plans of associates
² As of mid May 2017
Continued focus on improving free cash flow generation

Free cash flow\(^1\) % of sales

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>18.6%</td>
<td>18.7%</td>
<td>19.5%</td>
</tr>
</tbody>
</table>

Future FCF drivers

- Expected sales growth and margin expansion
- Disciplined intangible and CapEx investments
- Working capital improvement

Summary

• Strengthening our pipeline
• Executing well on our key launches
• Building a stronger, more integrated company
• Confident in future growth and success