Innovation and value creation

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Performance update

Franchises – the big three

And more on the pipeline

Summary
2016: Sales growth for fifth consecutive year

All growth rates at Constant Exchange Rates (CER)
2016: Strong Core operating profit & stable margin

- 2012: 37.7%
- 2013: 38.3%
- 2014: 37.2%
- 2015: 36.4%
- 2016: 36.4%

% of sales

CHFbn

- 2012: 17.2
- 2013: 17.9
- 2014: 17.6
- 2015: 17.5
- 2016: 18.4

CER = Constant Exchange Rates

+4% at CER
Launch of new medicines at a record high
Performance update

**Franchises – the big three**

And more on the pipeline

**Summary**
Broad activities ongoing / accomplished to stabilize and grow the ‘big three’

- **CD20**
  - Sales: 7’200

- **Her2+**
  - Sales: 6’800¹
  - News flow:
    - Kadcyla, Perjeta in metastatic setting
    - Perjeta in eBC (APHINITY)

- **Avastin**
  - Sales: 6’800
  - News flow:
    - No direct successor
    - Strategy: combinations with Tecentriq, MEKi etc.

**News flow**

- Gazyva in iNHL, R/R iNHL, CLL
- Venclexta, ADCs, T-cell bispecific, Tecentriq, Sub-cut

¹ Herceptin only
Performance update

Franchises – the big three

And more on the pipeline

Summary
2017: Another important year for our pipeline

Key read-outs

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>APHINITY (Perjeta early BC, Her2+)</td>
</tr>
<tr>
<td>Q2</td>
<td>IMpower 150 (Tecentriq 1L Lung)</td>
</tr>
<tr>
<td>Q3</td>
<td>SPECTRI &amp; CHROMA (Lampalizumab GA)</td>
</tr>
<tr>
<td>Q4</td>
<td>HAVEN 3 (Emicizumab in non-inh.)</td>
</tr>
</tbody>
</table>

Outcome studies are event-driven: timelines may change
OCREVUS: First drug active in both RMS & PPMS

Strong share of voice at ECTRIMS

**OPERATION I & II (RMS)**
No evidence of disease activity (NEDA)

**ORATORIO (PPMS)**
No evidence of progression (NEP)

- New endpoint analysis focusing on disease progression as treatment goal
- Regulatory review by FDA/EMA for both RMS and PPMS on-going; PDUFA date: March 28th

RMS=relapsing forms of multiple sclerosis (MS) which includes patients with RRMS and SPMS with superimposed relapses; RRMS=relapsing-remitting MS; SPMS=secondary progressive MS; PPMS=primary progressive MS; Giovannoni G. et al, presented at ECTRIMS 2016; Montalban X. et al, presented at ECTRIMS 2016
**CIT portfolio update: Lung cancer**

**Study read-out**

<table>
<thead>
<tr>
<th>Study</th>
<th>Disease Description</th>
<th>Treatment</th>
<th>Year</th>
<th>Endpoints</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMpower150</td>
<td>1L NSCLC (non-sq)</td>
<td>Tecentriq + carbo/pac +/- Avastin</td>
<td>2017</td>
<td>PFS and OS</td>
</tr>
<tr>
<td>IMpower130</td>
<td>1L NSCLC (non-sq)</td>
<td>Tecentriq + carbo + nab-pac</td>
<td>2018</td>
<td>PFS and OS</td>
</tr>
<tr>
<td>IMpower131</td>
<td>1L NSCLC (sq)</td>
<td>Tecentriq + carbo + pac/nab-pac</td>
<td>2018</td>
<td>PFS and OS</td>
</tr>
<tr>
<td>IMpower132</td>
<td>1L NSCLC (non-sq)</td>
<td>Tecentriq + cis/carbo + pem</td>
<td>2018</td>
<td>PFS and OS</td>
</tr>
<tr>
<td>IMpower133</td>
<td>1L SCLC</td>
<td>Tecentriq + carbo + etoposide</td>
<td>2018</td>
<td>PFS and OS</td>
</tr>
<tr>
<td>IMpower110</td>
<td>1L Dx+ NSCLC</td>
<td>Tecentriq</td>
<td>2019</td>
<td>PFS and OS</td>
</tr>
<tr>
<td>IMpower010</td>
<td>Adj NSCLC</td>
<td>Tecentriq</td>
<td>2020</td>
<td>DFS</td>
</tr>
</tbody>
</table>

**Endpoints**

<table>
<thead>
<tr>
<th></th>
<th>PFS and OS</th>
<th>PFS and OS</th>
<th>PFS and OS</th>
<th>DFS</th>
</tr>
</thead>
</table>

**Note:** Outcome studies are event driven, timelines may change; carbo=carboplatin; pac=paclitaxel; nab-pac=nab-paclitaxel; cis=cisplatin; pem=pemetrexed; PFS=progression free survival; OS=overall survival; Pao & Girard. Lancet Oncol 2011; Johnson, et al. ASCO 2013
CIT portfolio update

7 NMEs with mono & combo read-out in 2017

<table>
<thead>
<tr>
<th>NME &amp; Combinations*</th>
<th>2017</th>
<th>2018</th>
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</thead>
<tbody>
<tr>
<td>aOX40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aOX40 + Tecentriq</td>
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<tr>
<td>aCEA/CD3 TCB</td>
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<td></td>
</tr>
<tr>
<td>aCEA/CD3 TCB + Tecentriq</td>
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<td></td>
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<tr>
<td>emotuzumab + Tecentriq</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aCD40 + Tecentriq</td>
<td></td>
<td></td>
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<tr>
<td>afAP-IL2v FP + Tecentriq</td>
<td></td>
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<tr>
<td>IDOi + Tecentriq</td>
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<tr>
<td>vanucizumab + Tecentriq</td>
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<td></td>
</tr>
<tr>
<td>emotuzumab + aCD40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aCD40 + vanucizumab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>afAP-IL2v FP + Herceptin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>afAP-IL2v FP + cetuximab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>afAP-IL2v FP + Tecentriq</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aCEA-IL2v FP + Tecentriq</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aCD20/CD3 TCB 1 + Tecentriq</td>
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<tr>
<td>aCD20/CD3 TCB 1</td>
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<tr>
<td>aTIGIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aTIGIT + Tecentriq</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aCD20 CD3 TCB 2</td>
<td></td>
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</tr>
</tbody>
</table>

CIT=cancer immunotherapy; NME=new molecular entity; * Note: Timelines indicate first safety and/or efficacy readouts; Outcome studies are event driven, timelines may change.
Lampalizumab: Geographic atrophy causes irreversible retinal cell death

Today, over 5 million people suffer from GA worldwide
Emicizumab in hemophilia A inhibitor patients

*Phase III HAVEN 1 met all endpoints*

HAVEN 1

**Primary endpoint**
- Significant reduction in number of bleeds

**Secondary endpoints included**
- Significant reduction in number of bleeds in intra-patient comparison in people who had received prior bypassing agent prophylaxis

**Safety profile and sub-cut administration**
- Future trials to explore less frequent dosing
- Most common adverse events were injection site reactions, consistent with prior studies

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1 The study showed a statistically significant reduction in the number of bleeds over time in people treated with emicizumab prophylaxis compared to those receiving no prophylactic treatment. Emicizumab and its uses are investigational and have not been approved by the US Food and Drug Administration. Efficacy and safety have not been established. The information presented should not be construed as a recommendation for use. The relevance of findings in preclinical studies to humans is currently being evaluated.
Performance update

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Summary
Strong pipeline mitigates biosimilar impact

Growth driven by next generation medicines

NME launches
Venetoclax, Alectinib, Cotelpic, Ocrelizumab, Atezolizumab, ACE910, Lampalizumab

Pipeline and recent launches

Biosimilars
MabThera, Herceptin, Avastin

Sales

## 2017 outlook

<table>
<thead>
<tr>
<th>Category</th>
<th>Outlook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group sales growth¹</td>
<td>Low to mid-single digit</td>
</tr>
<tr>
<td>Core EPS growth¹</td>
<td>Broadly in line with sales growth</td>
</tr>
<tr>
<td>Dividend outlook</td>
<td>Further increase dividend in Swiss francs</td>
</tr>
</tbody>
</table>

¹ At Constant Exchange Rates (CER)
Doing now what patients need next