Novartis AG
Investor Relations

Q3 2016 results

Investor presentation | October 25, 2016

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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 creation of the Pharmaceuticals business unit and Oncology business unit to form the Innovative Medicines Division, the strategic actions announced in January 2016, the creation and operation of NBS, our centralized Technical Operations organization, or GDD, or the transactions with GSK, Lilly and CSL. Nor can there be any guarantee that Novartis or any of the businesses involved in the transactions will achieve any particular financial results in the future. Neither can there be any guarantee that shareholders will achieve any particular level of shareholder returns. Nor can there be any guarantee that the Group, or any of its divisions, will be commercially successful in the future, or achieve any particular credit rating. In particular, management’s expectations could be affected by, among other things: unexpected regulatory actions or delays or government regulation generally; the potential that the strategic benefits, synergies or opportunities expected from the creation of the Pharmaceuticals business unit and Oncology business unit to form the Innovative Medicines Division, the strategic actions announced in January 2016, the creation and operation of NBS, our centralized Technical Operations organization, and GDD, or the transactions with GSK, Lilly and CSL may not be realized or may take longer to realize than expected; the inherent uncertainties involved in predicting shareholder returns or credit ratings; the uncertainties inherent in research and development, including unexpected clinical trial results and additional analysis of existing clinical data; our ability to obtain or maintain proprietary intellectual property protection, including the ultimate extent of the impact on Novartis of the loss of patent protection and exclusivity on key products which commenced in prior years and continues this year; unexpected safety, quality or manufacturing issues; global trends toward health care cost containment, including ongoing pricing pressures, in particular from increased publicity on pharmaceuticals pricing; uncertainties regarding actual or potential legal proceedings, including, among others, actual or potential product liability litigation, litigation and investigations regarding sales and marketing practices, intellectual property disputes, and government investigations generally; general economic and industry conditions, including uncertainties regarding the effects of the persistently weak economic and financial environment in many countries; uncertainties regarding future global exchange rates, including the continued increases in value of the US dollar, our reporting currency, against a number of currencies; uncertainties regarding future demand for our products; uncertainties involved in the development of new healthcare products; uncertainties regarding potential significant breaches of data security or disruptions of our information technology systems; and other risks and factors referred to in Novartis AG’s current Form 20-F on file with the US Securities and Exchange Commission. 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Agenda

1.	**Group review**	**Joseph Jimenez, Chief Executive Officer**
2.	Financial review	Harry Kirsch, Chief Financial Officer
3.	Development	Vas Narasimhan, Global Head Drug Development & CMO
4.	Closing	Joseph Jimenez, Chief Executive Officer
5.	Q&A session	Executive team

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Growth Products offsetting Glivec® LoE[1]; several positive readouts for potential blockbusters

Net sales -1% (cc vs. PY)[2]

Glivec® LoE offset by Growth Products

Core operating income -3% (cc vs. PY)

Reflecting Glivec® LoE and growth investments

Strong innovation

- LEE011 positive Phase III data and FDA Breakthrough Therapy Designation
- BAF312 positive Phase III data in SPMS[3]
- Erelzi® FDA approval[4]

1. Growth Products defined on slide 52. LoE: Loss of exclusivity for Glivec® US (US brand name Gleevec®) 2. All growth shown vs. prior year (PY) in constant currencies (cc). All numbers refer to continuing operations and do not include divested businesses. An explanation of continuing operations can be found on page 38 of the Condensed Financial Report 3. SPMS: Secondary progressive multiple sclerosis 4. Etanercept-szzs

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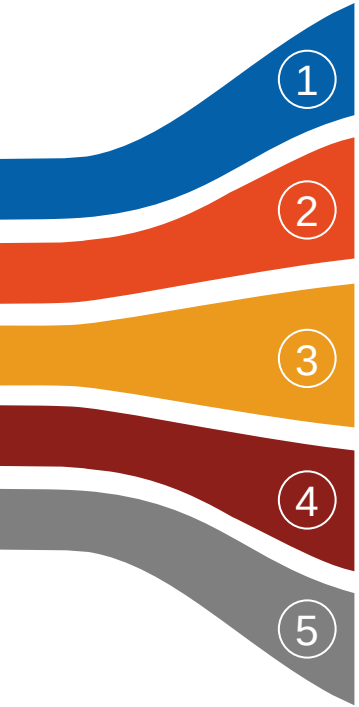
Our priorities for 2016



1. Deliver strong **Financial Results**
2. Strengthen **Innovation**
3. Improve **Alcon Performance**
4. Capture **Cross-Divisional Synergies**
5. Build a **High-Performing Organization**

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Q3 net sales broadly in line due to strong performance of Growth Products

1 Deliver strong **Financial Results**

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ILLUSTRATIVE

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Cosentyx®: Strong launch continues in Q3

1 Deliver strong **Financial Results**

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- **USD 301 million sales in Q3**
- **Strength of efficacy:** superiority vs. Stelara®[1] at 52 weeks in psoriasis[2]
- **Sustained efficacy:** 4-year data in psoriasis[3]

1. Stelara® is a registered trademark of Johnson & Johnson 2. Blauvelt et al JAAD (2016) 3. Bissonnette R., et al. late breaking abstract at EADV; October 2016

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Cosentyx®: Continued gains in AS and PsA

1 Deliver strong **Financial Results**

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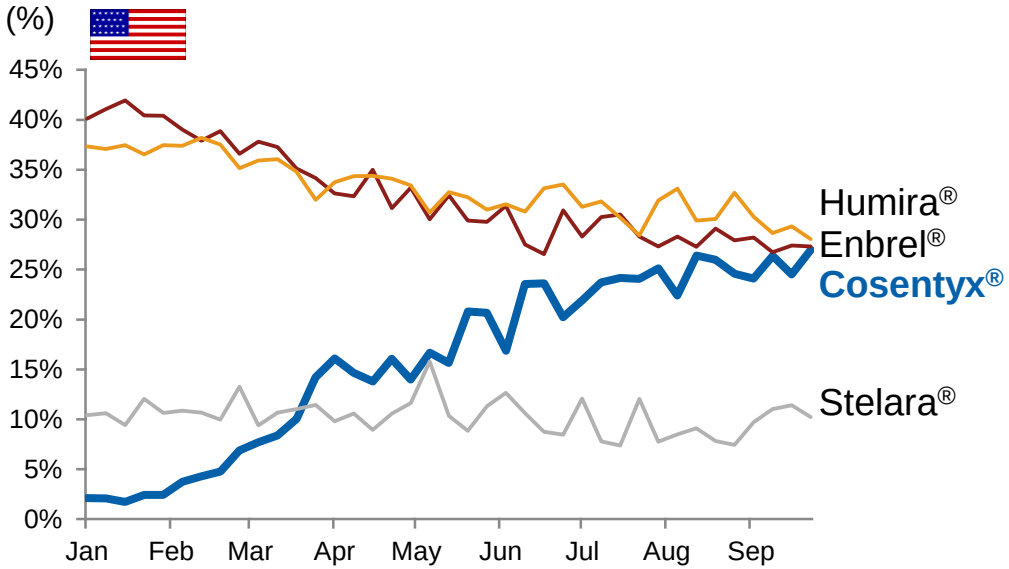
US: Share of weekly AS and PsA NBRx[1]



US:
27% share of NBRx across AS and PsA

1. NBRx from Rheumatology specialty and allocated for PsA and AS indications only based on anonymized patient data. Simponi®, Cimzia®, Remicade® not shown (jointly accounting for 7-10% share over the period shown)
Source: IMS weekly NBRx from week ending January 8 to September 30, 2016 (first issuance of 30 September data) . All trademarks are the property of their respective owners

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Entresto®: QoL data and investment continues

1 Deliver strong **Financial Results**

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- **USD 53 million** sales in Q3
- **New data analysis** underlines QoL benefits[1]
- **Investment**:
  - **US field force**: additional sales reps in field and expanding
  - **Access**: now approved in 64 countries, launched in 30[2]
  - **Medical**: expansion of medical education support

1. Lewis EF et al. J Card Fail (2016): A post hoc data analysis from the PARADIGM-HF trial showed lower declines in HRQoL (measured by KCCQ) as compared to enalapril for patients following a heart failure hospitalization
2. Seven additional approvals compared to Q2 and launched with reimbursement in Spain as of October 2016

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Entresto®: Continued increase in TRx volume

1 Deliver strong **Financial Results**

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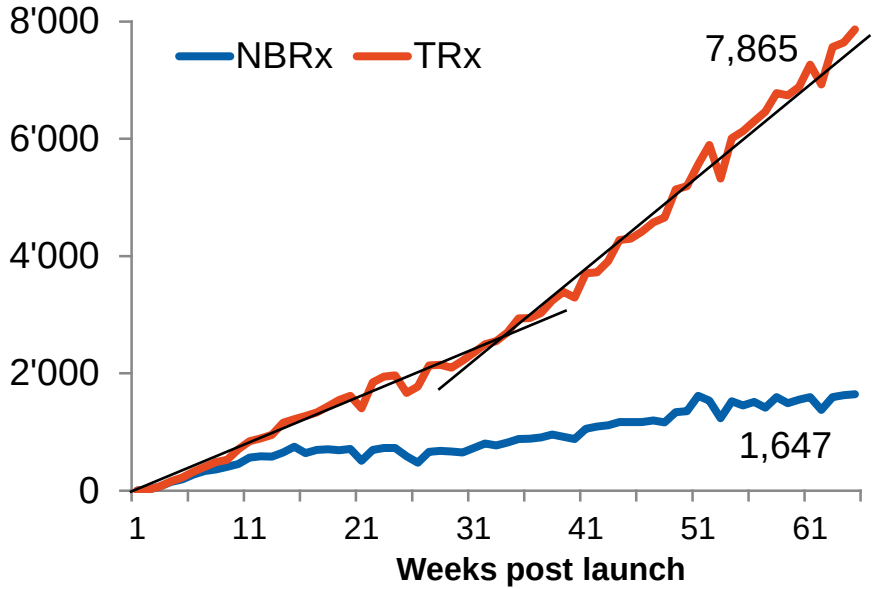
US weekly NBRx and TRx[1] (#)



- US adoption **accelerating**
- Higher **volume per capita** in most European markets
- On track for ~USD 0.2bn full year

1. IMS data week ending September 30, 2016 (first issuance of 30 September data); linear trend lines derived over week 1-30, i.e. week ending July 10, 2015 – January 29, 2016 (increase of 81 TRx / week) and week 31-60, week ending February 5, 2016 - August 26, 2016 (increase of 164 TRx / week)

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Biopharmaceuticals[1]: On track for USD 1bn sales

1 Deliver strong **Financial Results**

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- On track for USD 1bn sales in 2016, approx. 50% in US
- Zarxio® US exceeded USD 100mn since launch
- Glatopa® approx. 40% market share[2]

1. Biopharmaceuticals include biosimilars, biopharmaceutical contract manufacturing and Glatopa® 2. Share of 20mg glatiramer acetate market, based on volume and including customers not reported by IMS
Source: Sandoz, IMS NPA

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Innovation strong in Q3

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Strengthen
Innovation

✓ LEE011

Positive Ph III data & FDA BTD:
Extended PFS[1] in HR+/HER2- advanced breast cancer

✓ BAF312

Positive Ph III:
Reduction of disability progression in SPMS[2]

✓ AMG 334[3]

Positive Ph III & Ph II:
In episodic and chronic migraine

✓ Erelzi®[4]

FDA approved:
first biosimilar of Enbrel®

1. PFS: Progression Free Survival 2. SPMS: Secondary progressive multiple sclerosis 3. In collaboration with Amgen; Novartis has AMG 334 rights outside of US, Canada and Japan 4. Etanercept-szzs

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On track for CTL019 filing in pediatric ALL

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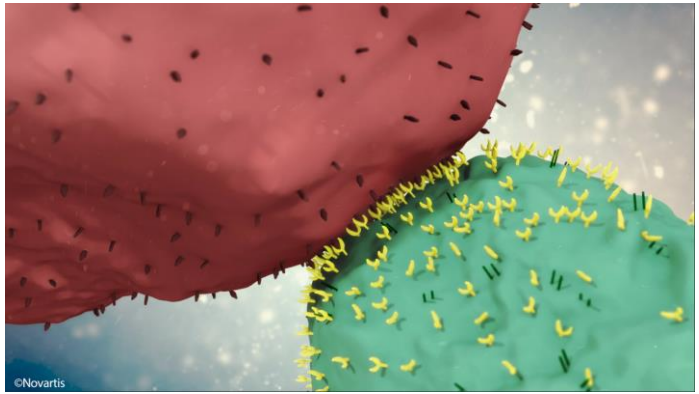
Strengthen
Innovation



- Pediatric ALL filing expected in early 2017
- DLBCL filing expected in H2 2017
- Cell & Gene Therapy unit integrated into broader Novartis organization

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Alcon: Signs of progress in contact lenses

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3 Improve **Alcon Performance**
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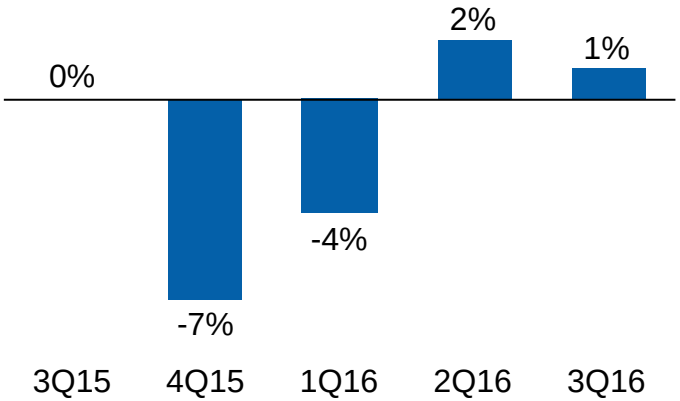
Global Sales Growth Contact Lenses

% vs. PY



- **Contact lenses returning to growth** over last two quarters
- **1-2 ppt[1] share increase** in European markets[2] with **DTC**[3] investments
- **Growth expected to continue** in Q4, despite competitive pressure

1. ppt: percentage point 2. Includes Italy, Nordics, Spain 3. DTC: direct-to-consumer advertising

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Alcon: Accelerating innovation to help Surgical turnaround, but will take longer

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3 Improve **Alcon Performance**
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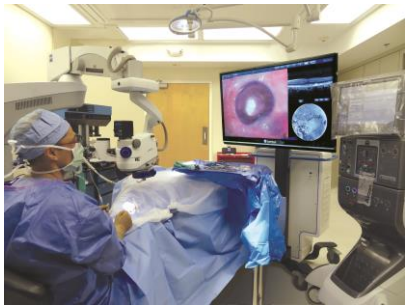
CyPass®
Micro-Stent launching

NGENUITY® 3D
Visualization system launching



UltraSert™, PanOptix® IOLs
Contributing to EU sales

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We are advancing our productivity agenda

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4 Capture **Cross-Divisional Synergies**
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Novartis Business Services cost under management **stable vs. PY** while **improving quality**

- **Selective offshoring** to Global Service Centers continues
- **Standardization of infrastructure services** at manufacturing sites
- **IT supplier consolidation** driving efficiencies

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Integrating manufacturing and drug development across divisions: Seeing early benefits

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5 Build a **High-Performing Organization**

- **Manufacturing:** Integration around technology platforms
- **Drug development**: Integration of global functions

1. Improved transparency
2. Better resource allocation
3. More collaboration

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Summary of Q3 2016 financial results

Continuing operations[1]

USD mn

	Q3 2016	Change vs. PY % USD	Change vs. PY % cc
Net Sales	12 126	-1	-1
Core Operating Income	3 381	-3	-3
Operating Income	2 269	+2	+1
Net Income	1 945	+7	+7
Core EPS (USD)	1.23	-3	-3
EPS (USD)	0.81	+8	+8
Free Cash Flow	2 591	-7	

1. An explanation of continuing operations can be found on page 38 of the Condensed Interim Financial Report

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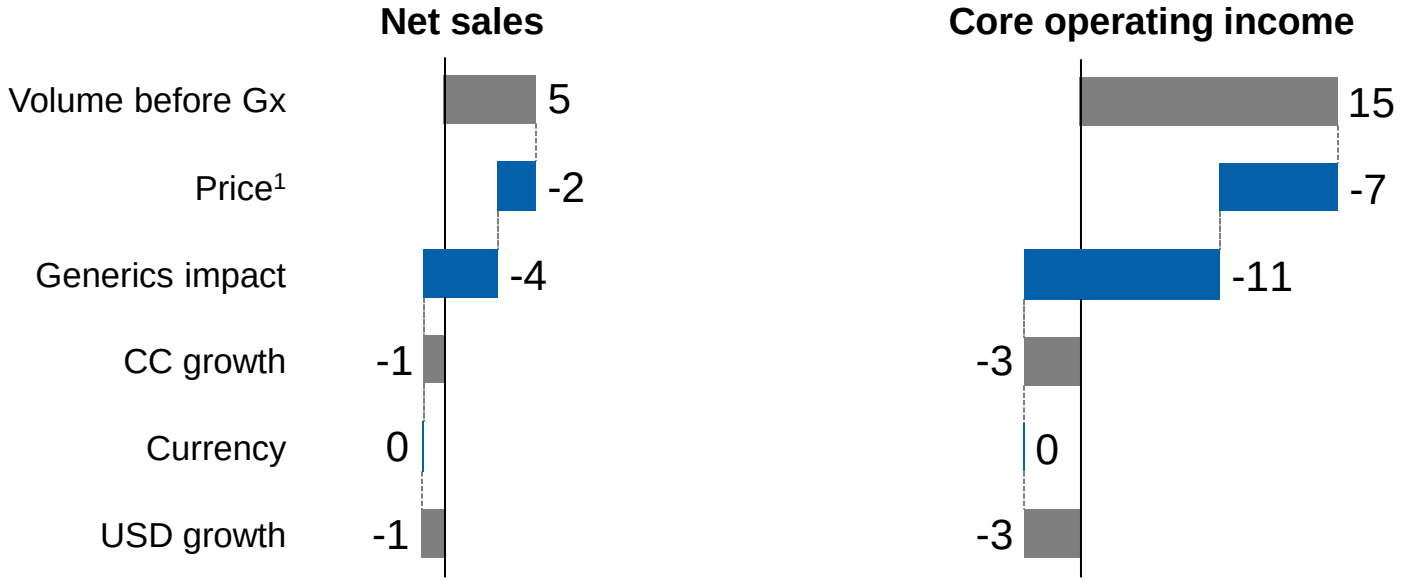
Sales volume growth more than offset by generics and price impact

Continuing operations Q3 2016

Growth vs. PY in %



1. Includes price impact of generics

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Innovative Medicines Division

Key growth drivers[1]

	Indication	Q3 2016 Net sales (USD mn)	Q3 2016 Growth vs. PY (% cc)
GILENYA (fingolimod)	MS	790	15%
Tasigna (nilotinib)	CML	441	8%
Galvus (vildagliptin)	Type 2 diabetes mellitus	306	6%
Cosentyx (secukinumab)	PsO, PsA, AS	301	nm[2]
Xolair (omalizumab)	Severe allergic asthma, CSU/CIU	215	19%
Votrient (pazopanib)	aRCC	183	9%
onbrez breezhaler / seebri breezhaler / ultibro breezhaler[3]	COPD	169[4]	18%
Tafinlar (dabrafenib) / Mekinist (trametinib)	BRAF V600+ metastatic melanoma	172[5]	29%
REVOLADE (eltrombopag olamine)[6]	Thrombocytopenia[7], SAA	168	44%
JAKAVI ruxolitinib	MF, PV	149	47%
Entresto sacubitril/valsartan	HFrEF	53	nm[2]

1. Selected key products for growth of Innovative Medicines Division 2. nm: not meaningful, as growth rate is greater than 200% (cc) 3. Onbrez® Breezhaler® approved as Arcapta® Neohaler® in the US; Ultibro® Breezhaler® approved as Utibron® Neohaler® 4. Net sales and growth of Onbrez®, Seebri® and Ultibro® 5. Net sales and growth of Tafinlar® + Mekinist® 6. Approved as Promacta® in the US 7. cITP and thrombocytopenia associated with hepatitis C

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Q3 core margin declined mainly due to Alcon growth investments

	Q3 2016			
	Net sales change vs. PY (in % cc)	**Core operating income change vs. PY** (in % cc)	**Core ROS** (%)	**Core margin change vs. PY** (% pts cc)
Innovative Medicines	-1	-1	32.7	0.0
Sandoz	-1	1	21.1	0.2
Alcon	-3	-35	14.3	-6.8
Q3 continuing operations	**-1**	**-3**	**27.9**	**-0.6**

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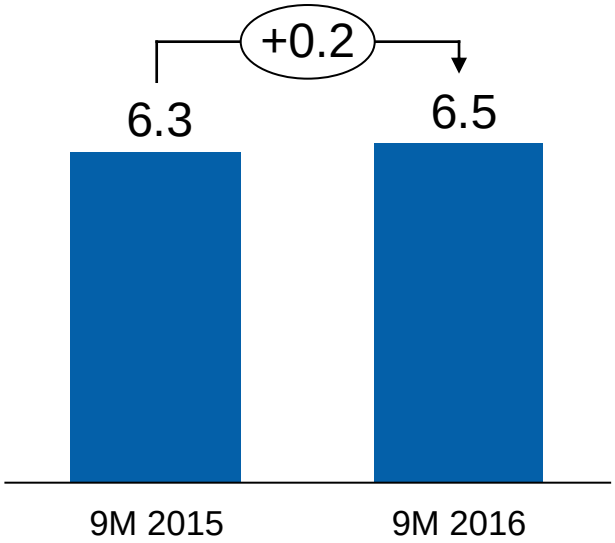
9M free cash flow was USD 6.5bn

Continuing operations free cash flow

USD bn



Key drivers vs. PY

- Favorable working capital[1]
- Lower Capex
- OTC JV dividend
- Lower operating income

1. Free cash flow from working capital consists of changes in inventory, trade receivables, trade payables and net current assets and other operating cash flow items

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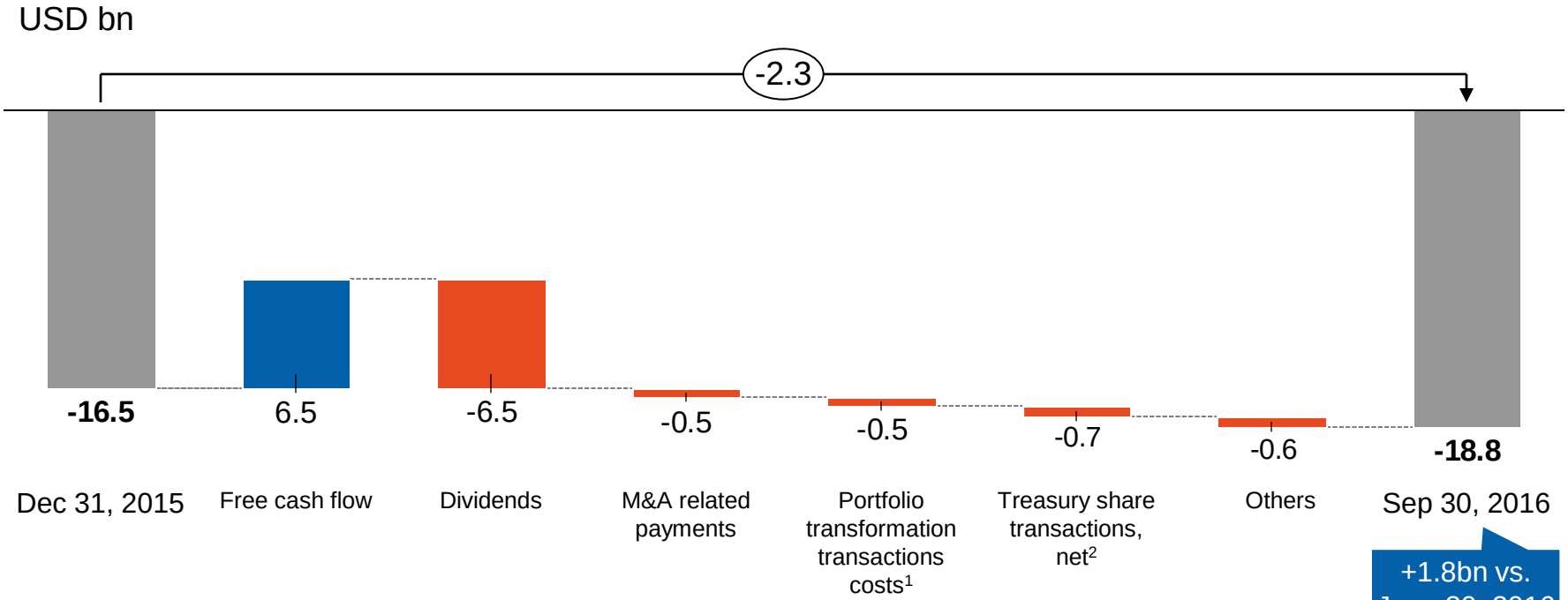
Net debt increased by USD 2.3bn to USD 18.8bn in 2016 year to date



1. Includes capital gains tax payments 2. Includes proceeds from options exercised

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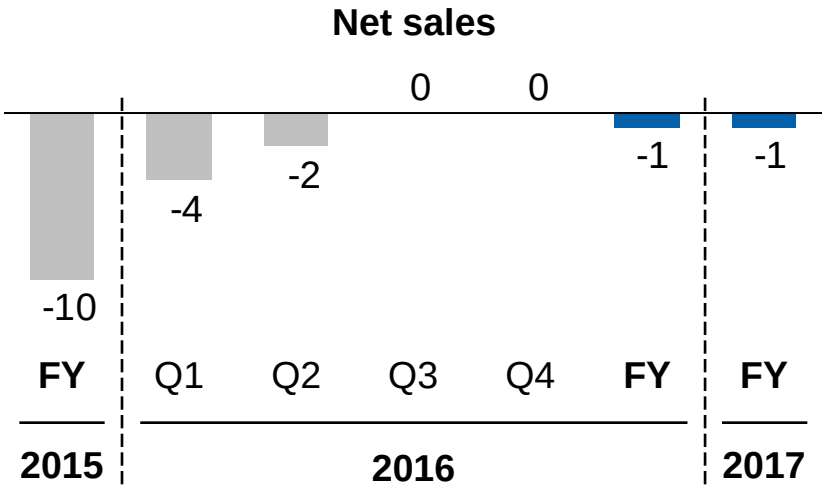
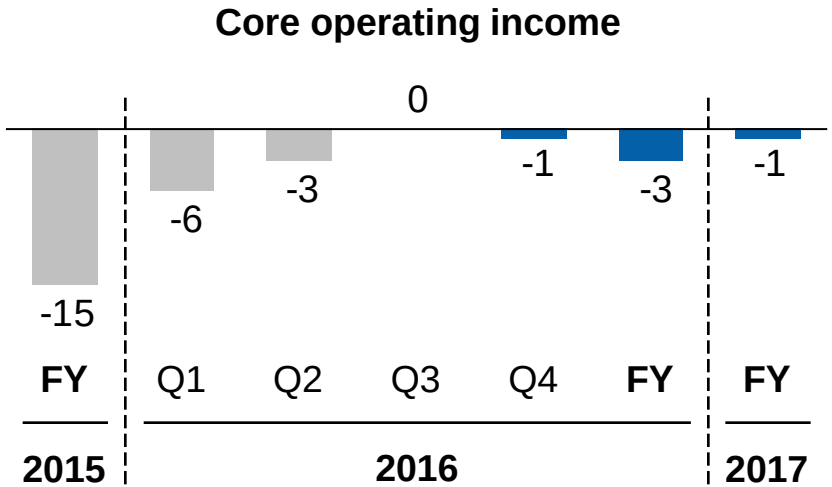
Expected currency impact for FY 2016 and 2017, assuming mid-October exchange rates prevail

Currency impact vs. PY[1]
(in % pts)





1. Q4 and FY 2016 guidance assuming mid-October exchange rates prevail for the remainder of the year; 2017 guidance based on same assumption

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2016 full year outlook

Barring unforeseen events

- Group net sales are expected to be broadly in line with the prior year (cc)

- Group core operating income is expected to be broadly in line or decline low single digit (cc)

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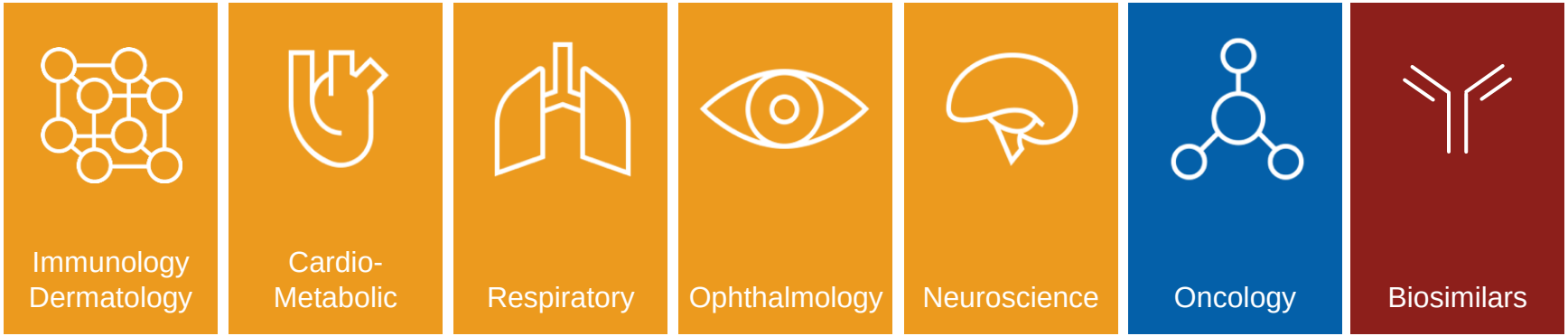
Novartis Global Drug Development



Global Operations (Trial, Technical Development, Regulatory, Safety)

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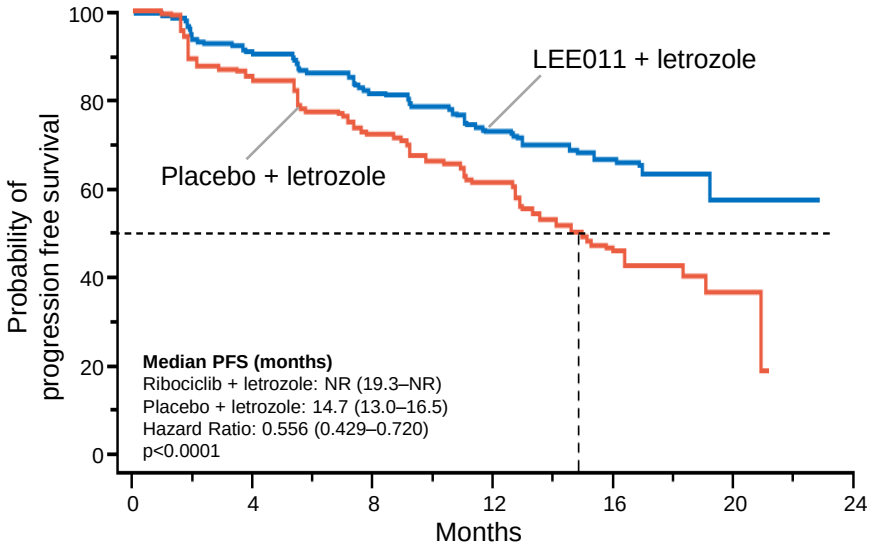
LEE011 + letrozole reduced risk of progression or death by 44% over letrozole alone

Progression Free Survival (MONALEESA-2[1])



- Only CDK4/6 inhibitor to meet primary endpoint in 1st line setting at pre-planned interim analysis
  - Significantly extended PFS across all subgroups
- Objective tumor response observed in >50% of women with measurable disease
- Breakthrough Therapy Designation granted by FDA, worldwide submissions in preparation

1. Phase III trial in1st line HR+/HER2- advanced breast cancer
Source: Hortobagyi et al., European Society for Medical Oncology (ESMO) Congress, October 2016 (abstract # LBA1_PR); Novartis data on file

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LEE011 with positive benefit/risk profile and manageable adverse events

Adverse events

	Ribociclib (N=334)		Placebo (N=330)	
	Grade 3 (%)	Grade 4 (%)	Grade 3 (%)	Grade 4 (%)
Neutropenia	132 (39.5)	29 (8.7)	2 (0.6)	0
Nausea	8 (2.4)	0	2 (0.6)	0
Fatigue	7 (2.1)	1 (0.3)	3 (0.9)	0
Diarrhea	4 (1.2)	0	3 (0.9)	0
Alopecia	0	0	0	0
Vomiting	12 (3.6)	0	3 (0.9)	0
Arthralgia	2 (0.6)	1 (0.3)	3 (0.9)	0

- 25 patients (7.5%) discontinued trial participation due to adverse events
  - Adverse events manageable with dose reductions and interruptions
- 4 (1.2%) cases of Hy's Law on LEE011 vs. 1 (0.3%) on placebo
  - No fatal outcomes; all cases recovered to normal liver function after therapy discontinuation
- 11 (3.3%) cases with QTcF >480ms after baseline, incl. 6 patients with >60ms increase from baseline

Source: Hortobagyi et al., European Society for Medical Oncology (ESMO) Congress, October 2016 (abstract # LBA1_PR); NEJM, October 8, 2016DOI: 10.1056/NEJMoa1609709 (online first)

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LEE011: progressing key additional Phase III breast cancer trials

MONALEESA-3 (post-menopausal)

- 1st line & 2nd line post AI in combination with fulvestrant
- Fully enrolled; final data expected H2 2017; filing early 2018 if supported by data

MONALEESA-7 (pre-menopausal)

- 1st line in combination with tamoxifen/NSAI & goserelin
- Fully enrolled; final data expected H1 2018 and potential filing H2 2018

Additional programs under assessment

- LEE011 in adjuvant setting
- Solid tumor indications

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CTL019 is on track for US submission in Q1 2017

ELIANA: Phase II trial in relapsed / refractory B-cell pediatric ALL

- On track for US BLA in Q1 2017
- FDA Breakthrough Therapy designation and EMA PRIME designation granted
- Orphan designation received (US, EU)
- Positive benefit-risk demonstrated in Univ. Pennsylvania/CHOP clinical studies

JULIET: Phase II trial in 3rd line relapsed / refractory DLBCL

- Screening completed for main study cohort
- Orphan designation received (US, EU)
- Discussions with FDA and EMA ongoing
- Positive benefit-risk demonstrated in Univ. Pennsylvania clinical study

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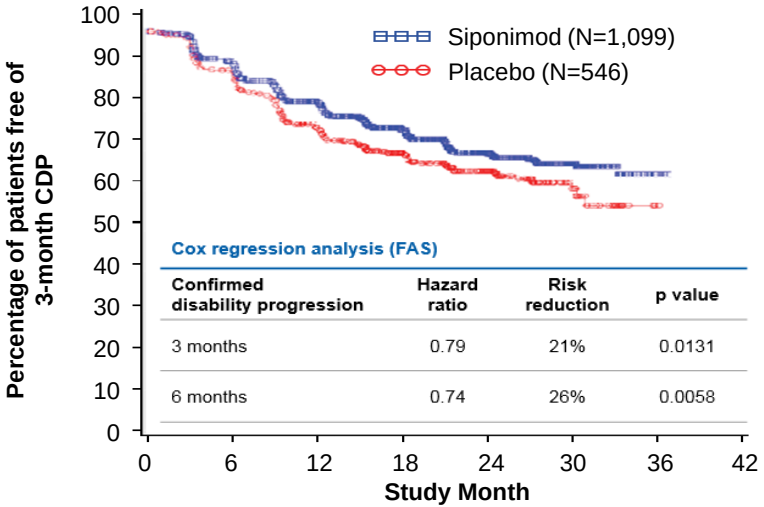
BAF312 reduced the risk of disability progression in patients with SPMS in the EXPAND trial[1]

3-Month Confirmed Disability Progression (CDP)[1]



Cox regression analysis (FAS)

Confirmed disability progression	Hazard ratio	Risk reduction	p value
3 months	0.79	21%	0.0131
6 months	0.74	26%	0.0058

- 21% risk reduction on 3-month CDP vs. placebo (primary endpoint)
- Consistent positive effect observed on 6-month CDP (26% risk reduction) and important secondary endpoints[2]
- Patients were representative of SPMS with 64% non-relapsing at baseline
- Safety profile of BAF312 was comparable to other drugs in the same class

1. Kappos et al. ECTRIMS 2016 (oral presentation); SPMS=Secondary Progressive Multiple Sclerosis 2. Change from baseline in T2 lesion volume (key secondary), annualized relapse rate, percent change from baseline in brain volume, non-significant trend for T25FW (Timed 25 Foot Walk Test, key secondary endpoint)

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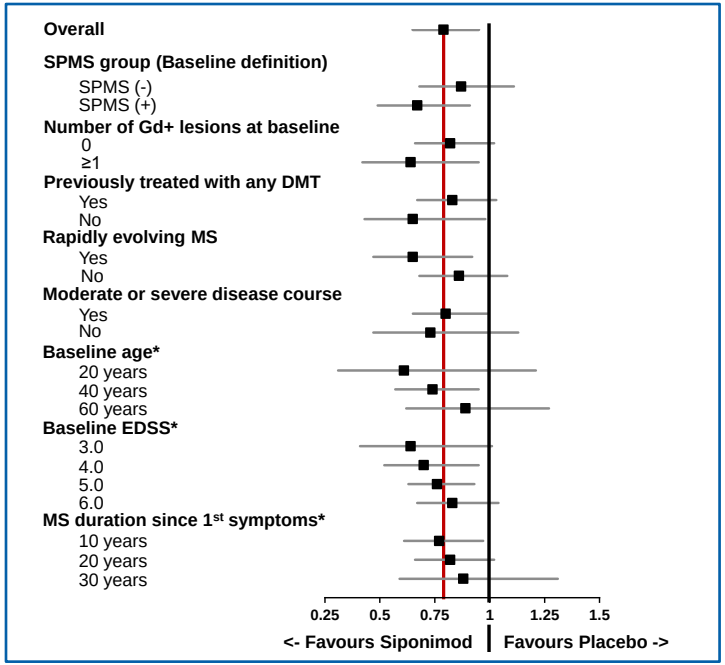
BAF312 demonstrated consistent effect across all predefined subgroups for 3-month CDP[1]



- All predefined subgroups demonstrated positive effect vs. placebo
- Treatment effect in subgroups with less inflammatory activity
- Health authorities consultations planned to agree on path forward

1. CDP: Confirmed Disability Progression

Source: Kappos et al. ECTRIMS 2016 (oral presentation); SPMS (+)/(-): with or without superimposed relapses in the 2 years prior to study start; *Model estimate

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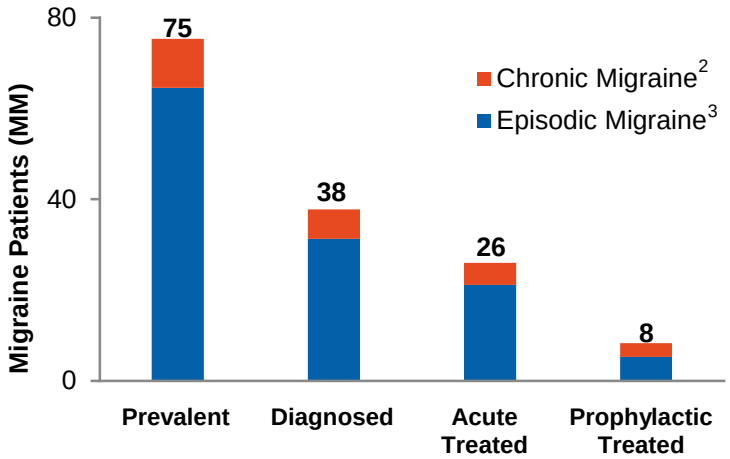
Migraine prophylaxis remains an area of high unmet medical need

Number of migraine patients[1]



- Migraine is sixth highest cause worldwide of years lost due to disability[3]
- Major prophylactic anti-migraine drugs are repurposed from other primary indications[4]
- Medications used in prophylactic migraine treatment have incomplete efficacy
  - Most produce adverse effects[5] resulting in limited adherence[6]

1. Source Decision Resources in G7 countries = US, DE, FR, SP, IT, UK, JP 2. Chronic Migraine: 15+ migraine headache days per month 3. Episodic Migraine: 4-14 migraine headache days per month 4. Global Burden of Disease Study 2013 5. Major prophylactic anti-migraine drugs include beta-blockers, tricyclic anti-depressants, anti-epileptic drugs; Pringsheim T. et al. CMAJ 2010 6. Hepp Z. et al. Cephalalgia 2015; 35: 478-88

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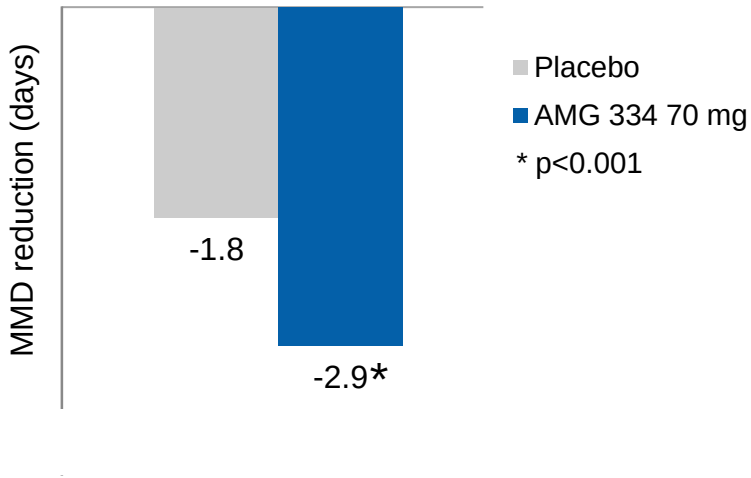
AMG 334[1] in episodic migraine prophylaxis: Positive data from the ARISE Phase III trial

MMD[2] reduction at week 12

ARISE Phase III trial in Episodic Migraine



- AMG 334 (erenumab) is a potent CGRP[3] receptor blocker
- Primary endpoint was met in ARISE trial
  - Significant reduction from baseline in MMD in patients treated with AMG 334 vs. placebo[4]
- Safety profile of AMG 334 was similar to placebo
- STRIVE Phase III episodic migraine trial results expected in Q4 2016

1. In collaboration with Amgen; Novartis has AMG 334 rights outside of US, Canada and Japan 2. Monthly Migraine Days 3. Calcitonin Gene-Related Peptide 4. At baseline, patients had 4 to 14 headache days a month

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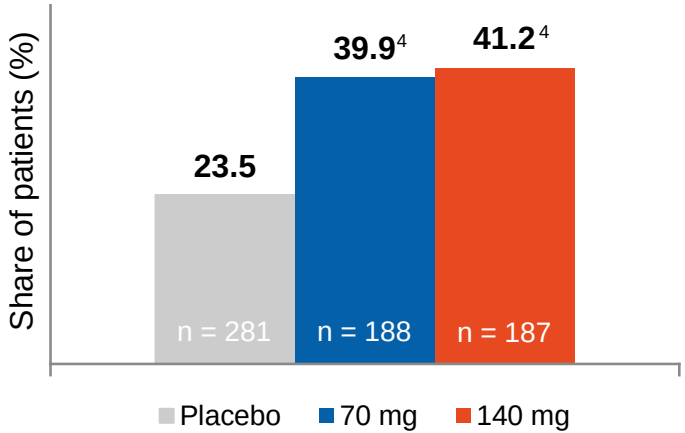
AMG 334 also showed significant efficacy in Phase II chronic migraine prophylaxis trial[1]

Patients with ≥50% reduction from baseline in MMD[2] (weeks 9 to 12)[3]



- Primary endpoint met in Phase II trial
  - MMD[2] reduced by 6.6 days from baseline across both AMG 334 doses vs. 4.2 days in patients on placebo
- Secondary endpoints also positive
  - Significantly more patients on AMG 334 had ≥50% MMD reduction from baseline compared to placebo
  - AMG 334 also significantly reduced monthly acute migraine-specific medication days vs. placebo
- Safety profile of AMG 334 was similar to placebo across both treatment arms

1. Tepper et al. EHMTIC (European Headache and Migraine Trust International Congress), September 2016; poster 057 2. Monthly Migraine Days 3. Secondary endpoint; patients had ~18 MMDs at baseline 4. p<0.001 vs. placebo arm

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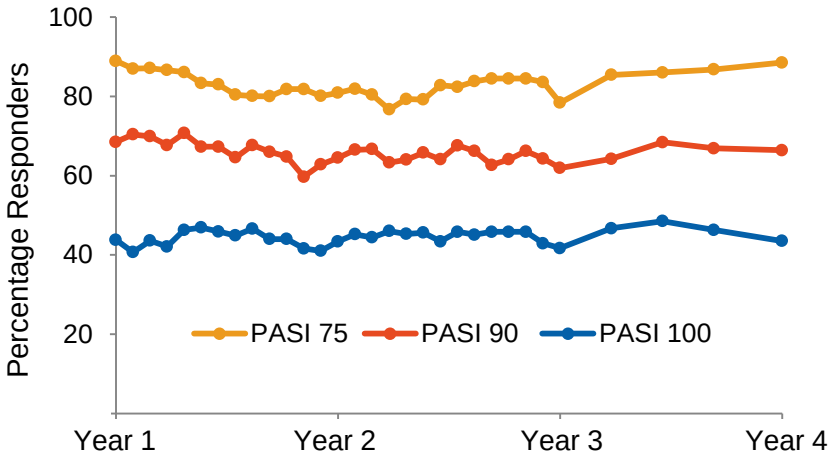
Cosentyx® delivered high and long-lasting improvements in skin clearance over 4 years

PASI responder rates[1,2]

4-year data from SCULPTURE Phase III trial



- Cosentyx® demonstrated sustained efficacy over 4 years in psoriasis[1,2]
  - Approximately 4 in 5 patients completed 4 years of treatment
  - Almost 100% of PASI 90 & 100 response rates maintained from year 1 to year 4[1,2]
  - Average PASI improvement of >90% out to year 4[1,2]
  - High and sustained relief from patient burden of psoriasis[1,3]
- Superiority vs. Stelara® at 52 weeks in psoriasis[4]
- Head-to-head trials vs. Humira® in PsA and AS in preparation

1. Bissonnette R., et al. late breaking abstract at EADV, October 1, 2016 2. As observed analysis; PASI: Psoriasis Area and Severity Index score 3. As observed analysis; DLQI 0/1: Dermatology Life Quality Index score of 0 or 1
4. Blauvelt A., et al. . J Am Acad Dermatol. (September 2016) Note: All trademarks are the property of their respective owners

Entresto® FortiHFy program: Key trials on track

Entresto® sacubitril/valsartan
FortiHFy

PARAGON (Entresto® for HF-pEF[1])

- Patient enrollment on track
- Planned trial completion in 2019

PARADISE (Entresto® for post-AMI[2])

- On track for planned trial start in Q4 2016
- Planned trial completion in 2019

TRANSITION (Entresto® pre- vs. post-discharge initiation following ADHF[3])

- Patient enrollment started
- Planned trial completion in 2018

PIONEER (Entresto® in-hospital initiation vs. enalapril following ADHF[3])

- Patient enrollment started
- Planned trial completion in 2018

1. HF-pEF: heart failure with preserved ejection fraction 2. AMI: acute myocardial infarction 3. ADHF: acute decompensated heart failure

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CV outcomes trials for RLX030 and ACZ885 progressing as planned

RELAX-AHF-2
Outcomes of seRELAXin in AHF

RELAX-AHF-2 (RLX030 for acute heart failure) on track to complete in H1 2017

- RELAX-AHF trial showed 37% reduction in CV death
- Current RELAX-AHF-2 trial ongoing with ~6,600 patients (fully enrolled)
- Primary endpoints: CV death and worsening heart failure[1]

CANTOS (ACZ885 for CV risk reduction) on track to complete in 2017

- Fully enrolled ~10,000 patients with history of MI and vascular inflammation[2]
- Expected median treatment duration of >4 years
- Primary endpoint: composite endpoint of CV death, MI, stroke

1. CV death through Day 180 and WHF through Day 5 (follow-up) 2. hs-CRP (high-sensitivity C-reactive protein) >2mg/L

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Progressing development of 12 potential blockbusters in Innovative Medicines

Molecule	Indication	MoA	Expected Pivotal Trial Readout	Potential blockbuster[1]
LEE011 (ribociclib)	HR+ HER2- advanced breast cancer	CDK4/6 inhibitor	✓	✓
BAF312 (siponimod)[2]	Secondary progressive multiple sclerosis	S1P receptor modulator	✓	✓
OAP030 (Fovista®)[3]	Neovascular AMD	Aptamer anti-PDGF	Q4 2016	✓
AMG 334 (erenumab)[4]	Prophylaxis of migraine	CGRP receptor antagonist	Q4 2016[5]	✓
RLX030 (serelaxin)	Acute heart failure	Relaxin receptor agonist	H1 2017	✓
RTH258 (brolucizumab)	Neovascular AMD	Anti-VEGF (scFv)	H1 2017	✓
ACZ885 (canakinumab)	CV risk reduction	Anti-IL1β	2017	✓
AIN457 (Cosentyx®)	Non-radiographic axial SpA	Anti-IL17A	2018	✓
QVM149 (indacaterol, glycopyrronium, mometasone)	Asthma	LABA + LAMA + ICS	2018	✓
LCZ696 (Entresto®)	Heart failure with preserved EF	ARNI	2019	✓
QAW039 (fevipiprant)	Asthma	CRTh2 antagonist	2019	✓
OMB157 (ofatumumab)	Relapsing multiple sclerosis	Anti-CD20	2019	✓

1. Blockbuster potential refers to specified indication 2. Next steps to be evaluated in consultations with health authorities 3. In collaboration with OphthoTech; Novartis has OAP030 rights outside of the US
4. In collaboration with Amgen; Novartis has AMG 334 rights outside of US, Canada and Japan 5. ARISE trial completed, STRIVE trial results expected Q4 2016

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Biosimilars: regulatory and data milestones

Etanercept

- Erelzi® obtained US approval; unanimous vote by FDA's Arthritis Advisory Committee
- FDA approved Erelzi® for all indications included in reference product
- Application for biosimilar etanercept in EU was accepted by EMA; review ongoing

Pegfilgrastim

- Discussions with FDA and EMA ongoing
- Plan to initiate additional study to address data request
  - Potential data submission in ~2018

Infliximab[1]

- Phase III trial demonstrated equivalent efficacy[2] and safety of biosimilar infliximab to Remicade®[3]
- Trial was conducted in patients with rheumatoid arthritis
- Trial also assessed transition from Remicade® to biosimilar infliximab

1. Rights to biosimilar infliximab (PF-06438179) in the European Economic Area were acquired from Pfizer 2. As measured by ACR20 (American College of Rheumatology) 3. Remicade® is a registered trademark of Janssen Biotech, Inc.

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Biosimilars on track for multiple potential approvals

Molecule	Indication[1]	Originator[2]	Agency	Filing	
Etanercept	Rheumatoid Arthritis	Enbrel etanercept	FDA	2015 (approved)	✓
Etanercept	Rheumatoid Arthritis	Enbrel etanercept	EMA	2015	✓
Pegfilgrastim	Neutropenia	Neulasta (pegfilgrastim)	FDA	2015[3]	✓
Pegfilgrastim	Neutropenia	Neulasta (pegfilgrastim)	EMA	2015	✓
Epoetin subcutaneous	Anemia	EPOGEN EPOETIN ALFA PROCRIT® EPOETIN ALFA	EMA	2015 (approved)	✓
Rituximab	Non-Hodgkin's Lymphoma	Rituxan Rituximab	EMA	2016	✓
Epoetin	Anemia	EPOGEN EPOETIN ALFA PROCRIT® EPOETIN ALFA	FDA	2016	
Adalimumab	Rheumatoid Arthritis	HUMIRA adalimumab	FDA	2016	
Adalimumab	Rheumatoid Arthritis	HUMIRA adalimumab	EMA	2017	
Rituximab	Non-Hodgkin's Lymphoma	Rituxan Rituximab	FDA	2017	
Infliximab	Inflammatory Bowel Disease	Remicade® INFLIXIMAB	EMA	2017	

1. Main indication only 2. All trademarks are the property of the respective originator companies 3. Complete Response Letter received in June 2016

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Agenda

1.	Group review	Joseph Jimenez, Chief Executive Officer
2.	Financial review	Harry Kirsch, Chief Financial Officer
3.	Development	Vas Narasimhan, Global Head Drug Development & CMO
4.	**Closing**	**Joseph Jimenez, Chief Executive Officer**
5.	Q&A session	Executive team

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Q3 shows strong innovation as we invest in growth opportunities

- Growth Products offset Glivec® LoE
- Launches progressing well
- Strong innovation for future growth
- Full year results 2016; R&D Update in Basel, Switzerland, January 25, 2017

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Agenda

1.	Group review	Joseph Jimenez, Chief Executive Officer
2.	Financial review	Harry Kirsch, Chief Financial Officer
3.	Development	Vas Narasimhan, Global Head Drug Development & CMO
4.	Closing	Joseph Jimenez, Chief Executive Officer
5.	**Q&A session**	**Executive team**

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Q&A

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Appendix

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Achieved and expected highlights from regulatory Newsflow

H1 2016	Cosentyx®	FDA action in ankylosing spondylitis	✓
	Cosentyx®	FDA action in psoriatic arthritis	✓
	Ilaris®	Regulatory filings in US[1], EU and JP for periodic fever syndromes	✓
	Afinitor®	FDA action for advanced non functional NET (GI / lung origin)	✓
	PKC412	Regulatory filings in US and EU for both ASM and AML[2]	(✓)
	Tafinlar® + Mekinist®	PMDA action in BRAF V600+ metastatic melanoma	✓
H2 2016	BYM338	Regulatory filings in EU and US for sporadic inclusion body myositis	✗
	Tafinlar® + Mekinist®	Regulatory filings in US and EU for BRAF V600+ NSCLC[2]	(✓)
	Votrient®	Regulatory filings in US and EU for adjuvant RCC	
	Afinitor®	EU and PMDA action in advanced non functional NET	✓
	LEE011 (+ letrozole)	Submission in US and EU 1st line HR+ HER2(-) mBC	

1. Approved by FDA in Q3 2. Filed in the EU

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Planned filings[a] 2016 to ≥ 2020

2016		2017	2018	2019	≥ 2020	
LEE011 + ltz HR+, HER2 (-) postmenopausal adv. BC[1] 1st line	Tafinlar® + Mekinist®[b] BRAF V600+ NSCLC[7]	CTL019 Pediatric acute lymphoblastic leukemia	INC280 NSCLC[7]	BAF312 SPMS[16]	ABL001 CML[8]	LJM716 Solid tumors
PKC412[b] AML[2]	Tasigna®[c] CML[8] treatment free remission	OAP030[e] nAMD[10]	LCI699 Cushing's disease	BYL719 + fulv HR+, HER2 (-) postmenopausal Adv. BC[1] 2nd line	ASB183 Solid and hematologic tumors	LJN452 NASH[21]
Afinitor®/Votubia®[c] TSC[3] seizures	Signifor® LAR[9] Cushing's disease	RLX030 Acute heart failure	RTH258 nAMD[10]	QAW039 Asthma	BGJ398 Solid tumors	PIM447 Hematologic tumors
Arzerra®[d] CLL[4] (relapsed)	Adalimumab (US) GP2017	ACZ885 Sec. prev. CV events[11]	Arzerra® NHL[14] (refractory)	Entresto® Heart failure (PEF)[17]	BYM338 Hip fracture	QBW251 Cystic fibrosis
Ilaris®[d] Periodic fever syndromes	Epoetin-alfa (US) HX575	CTL019 DLBCL[12]	Cosentyx® nrAxSpA[15]	Jakavi® GVHD[18]	CAD106 Alzheimer's disease	QGE031 CSU/IU[22]
Lucentis®[c] CNV[5]	Rituximab (EU)[c] GP2013	FTY720 Pediatric MS[13]	LEE011+ fulv HR+, HER2 (-) postmenopausal adv. BC[1] 1st /2nd line	Lucentis® ROP[19]	CJM112 Immune disorders	VAY736 Primary Sjoegren's syndrome
PKC412[b] ASM[6]		Tafinlar® + Mekinist® BRAF V600+ Melanoma (adjuvant)	LEE011+ tmx + gsn/or NSAI + gsn HR+, HER2 (-) premenopausal Adv. BC[1] 1st line	OMB157 RMS[20]	CNP520 Alzheimer's disease	BYM338 Sarcopenia
		Votrient® Renal cell carcinoma (adjuvant)		QMF149 Asthma	EMA401 Neuropathic pain	Entresto® Post-acute myocardial infarction
		Zykadia® ALK+ adv. NSCLC[7] (1st line, treatment naïve)		QVM149 Asthma	KAE609 Malaria	Jakavi® Early myelofibrosis
		Rituximab (US) GP2013		Zykadia® ALK+ adv. NSCLC[7] (Brain metastases)	KAF156 Malaria	QAW039 Atopic dermatitis
		Adalimumab (EU) GP2017			LIK066 Metabolic disorders	RTH258 DME[23]
		Infliximab (EU) GP 1111				Tafinlar® + Mekinist® BRAF V600+ Colorectal cancer

Combination abbreviations:

fulv	fulvestrant
ltz	letrozole
tmx	tamoxifen
gsn	goserelin
NSAI	Non-steroidal aromatase inhibitor

New molecule
New indication
New formulation
Biosimilars

1. Breast cancer
2. Acute myeloid leukemia
3. Tuberous sclerosis complex
4. Chronic lymphocytic leukemia
5. Choroidal neovascularization (CNV) secondary to conditions other than macular degeneration and pathologic myopia
6. Aggressive systemic mastocytosis
7. Non-small cell lung cancer
8. Chronic myeloid leukemia
9. Long-acting release
10. Neovascular age-related macular degeneration
11. Secondary prevention of cardiovascular events
12. Diffuse large B-cell lymphoma
13. Multiple sclerosis
14. Non-Hodgkin's lymphoma
15. Non-radiographic axial spondyloarthritis
16. Secondary progressive multiple sclerosis
17. Preserved ejection fraction
18. Graft-Versus-Host Disease
19. Retinopathy of prematurity
20. Relapsing multiple sclerosis
21. Non-alcoholic steatohepatitis
22. Chronic spontaneous urticaria / Inducible urticaria
23. Diabetic macular edema

a) AMG 334 is not included in this view. AMG 334 is part of the global collaboration with Amgen to commercialize and develop neuroscience treatments.
b) Submitted in US and EU.
c) Submitted in EU.
d) Approved in US, submitted in EU.
e) Also known as Fovista® (pegpleranib). This product is being developed by Ophthotech Corp. Ophthotech has licensed ex-US commercialization rights to Novartis under a Licensing and Commercialization Agreement.

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Pipeline of key projects in confirmatory development

Post-PoC

ABL001 CML[1]	KAE609 Malaria	VAY736 Primary Sjoegren's syndrome
ASB183 Solid and hematologic tumors	KAF156 Malaria	BYM338 Hip fracture
BGJ398 Solid tumors	LIK066 Metabolic disorders	BYM338 Sarcopenia
CAD106 Alzheimer's disease	LJM716 Solid tumors	Jakavi® GVHD[5]
CJM112 Immune disorders	LJN452 NASH[3]	QAW039 Atopic dermatitis
CNP520 Alzheimer's disease	PIM447 Hematologic tumors	Tafinlar® + Mekinist® BRAF V600+ Colorectal cancer
EMA401 Neuropathic pain	QBW251 Cystic fibrosis	
INC280 NSCLC[2]	QGE031 CSU/IU[4]	

Phase III / Pivotal

AMG 334[a)] Migraine	ACZ885 Sec. Prev. CV events[9]	QMF149 Asthma
BAF312 SPMS[6]	Arzerra® NHL[10] (refractory)	QVM149 Asthma
BYL719 + fulv HR+, HER2 (-) postmenopausal Adv. BC[7] 2nd line	CTL019 DLBCL[11]	RTH258 DME[17]
CTL019 Pediatric acute lymphoblastic leukemia	Cosentyx® nrAxSpA[12]	Tafinlar® + Mekinist® BRAF V600+ Melanoma (adjuvant)
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LCI699 Cushing's disease	Entresto® Post-acute myocardial infarction	Zykadia® ALK+ adv. NSCLC[2] (Brain metastases)
OAP030[b)] nAMD[8]	FTY720 Pediatric MS[14]	Zykadia® ALK+ adv. NSCLC[2] (1st line, treatment naïve)
QAW039 Asthma	Jakavi® Early myelofibrosis	Signifor® LAR[18] Cushing's disease
RLX030 Acute Heart failure	LEE011+ fulv HR+, HER2(-) postmenopausal Adv. BC[7] 1st /2nd line	Adalimumab (US/EU) GP2017
RTH258 nAMD[8]	LEE011+ tmx + gsn/or NSAI + gsn HR+, HER2(-) premenopausal Adv. BC[7] 1st line	Epoetin-alfa (US) HX575
	Lucentis® ROP[15]	Infliximab (EU) GP 1111
	OMB157 RMS[16]	Rituximab (US) GP2013

In Registration

PKC412 AML[19]
Afinitor®/Votubia® TSC[20] seizures
Arzerra®[c] CLL[21] (extended treatment)
Arzerra®[c] CLL[21] (relapsed)
Ilaris®[c] Periodic fever syndromes
Lucentis® CNV[22]
PKC412 ASM[23]
Tafinlar® + Mekinist® BRAF V600+ NSCLC[2]
Tasigna® CML[1] treatment free remission
Etanercept (EU) GP215
Pegfilgrastim (EU/US) LA-EP2006
Rituximab (EU) GP2013

1. Chronic myeloid leukemia
2. Non-small cell lung cancer
3. Non-alcoholic steatohepatitis
4. Chronic spontaneous urticaria / Inducible urticaria
5. Graft-Versus-Host Disease
6. Secondary progressive multiple sclerosis
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a) In collaboration with Amgen; Novartis has AMG 334 rights outside of US, Canada and Japan.
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c) Approved in US, submitted in EU.

New molecule
New indication
New formulation
Biosimilars

Combination abbreviations:

fulv	fulvestrant
ltz	letrozole
tmx	tamoxifen
gsn	goserelin
NSAI	Non-steroidal aromatase inhibitor

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Key definitions and trademarks

This presentation contains several important words or phrases that we define as below:

AML: Acute myeloid leukemia

Approval: In Pharmaceuticals and Alcon in US and EU; each indication and regulator combination counts as approval; excludes label updates, CHMP opinions alone and minor approvals

aRCC: advanced renal cell cancer

ARNI: Antiogensin receptor neprilysin inhibitor

AS: Ankylosing Spondylitis

ASM: Aggressive systemic mastocytosis

Base business: Continuing Oncology assets unaffected by the GSK transaction

BTD: Breakthrough therapy designation

cc: constant currencies

CGRP: Calcitonin gene-related peptide

cITP: Chronic immune thrombocytopenia

CM: Chronic migraine

CML: Chronic myeloid leukemia

COPD: Chronic Obstructive Pulmonary Disease

CSU / CIU: Chronic spontaneous urticaria / Chronic idiopathic urticaria

EM: Episodic migraine

Growth Products are an indicator of the rejuvenation of the portfolio, and comprise products launched in a key market (EU, US, Japan) in 2011 or later, or products with exclusivity in key markets until at least 2020 (except Sandoz, which includes only products launched in the last 24 months). They include the acquisition effect of the GSK oncology assets

HF: Heart failure

HFrEF: Heart failure with reduced ejection fraction

HR+/HER2- mBC: Hormone Receptor positive / Human Epidermal growth factor receptor 2 negative metastatic breast cancer

LoE: Loss of exclusivity

MF: Myelofibrosis

MI: Myocardial infarction

MS: Multiple sclerosis

NET: Neuroendocrine tumor

New assets: Assets acquired in the GSK transaction which closed on March 2, 2015

NSAI: Nonsteroidal aromatase inhibitor

NSCLC: Non-small cell lung cancer

ORR: Overall response rate

OS: Overall survival

PA: Prior authorization

PASI 90: 90% reduction in Psoriasis Area Severity Index from baseline

PFS: Progression free survival

PsA: Psoriatic arthritis

PsO: Psoriasis

PV: Polycythemia vera

PY: Prior year

RCC: Renal cell cancer

SAA: Severe aplastic anemia

scFv: Single chain variable fragment

SPMS: Secondary progressive multiple sclerosis

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