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CONDENSED FINANCIAL REPORT – SUPPLEMENTARY DATA

Novartis Q4 and FY 2016 Condensed Financial Report – Supplementary Data

GROUP AND DIVISIONAL OPERATING PERFORMANCE

Key figures[1]	Q4 2016	Q4 2015	% change		FY 2016	FY 2015	% change	
	USD m	USD m	USD	cc[2]	USD m	USD m	USD	cc[2]
Net sales to third parties from continuing operations	**12 322**	**12 520**	***-2***	***0***	**48 518**	**49 414**	***-2***	***0***
Divisional operating income from continuing operations	1 605	1 819	*-12*	*-7*	8 739	9 396	*-7*	*-2*
Corporate income & expense, net from continuing operations	-150	-142	*-6*	*-14*	-471	-419	*-12*	*-25*
Operating income from continuing operations	**1 455**	**1 677**	***-13***	***-9***	**8 268**	**8 977**	***-8***	***-3***
As % of net sales	*11.8*	*13.4*			*17.0*	*18.2*		
Income from associated companies	156	10	*nm*	*nm*	703	266	*164*	*164*
Interest expense	-168	-158	*-6*	*-9*	-707	-655	*-8*	*-10*
Other financial income and expense	-365	-398	*8*	*89*	-447	-454	*2*	*58*
Taxes	-142	-77	*-84*	*-170*	-1 119	-1 106	*-1*	*-13*
Net income from continuing operations	**936**	**1 054**	***-11***	***0***	**6 698**	**7 028**	***-5***	***1***
Net income from discontinued operations[3]		2	*nm*	*nm*		10 766	*nm*	*nm*
Net income[3]	**936**	**1 056**	***-11***	***-1***	**6 698**	**17 794**	***-62***	***-59***
Basic EPS from continuing operations (USD)	**0.40**	**0.44**	***-9***	***2***	**2.82**	**2.92**	***-3***	***2***
Basic EPS from discontinued operations (USD)[3]		0.00	*nm*	*nm*		4.48	*nm*	*nm*
Total basic EPS (USD)[3]	**0.40**	**0.44**	***-9***	***2***	**2.82**	**7.40**	***-62***	***-59***
Free cash flow from continuing operations[2]	**2 976**	**2 942**	***1***		**9 455**	**9 259**	***2***	
Core[2]								
Core operating income from continuing operations	**3 013**	**3 057**	***-1***	***1***	**12 987**	**13 790**	***-6***	***-2***
As % of net sales	*24.5*	*24.4*			*26.8*	*27.9*		
Core net income from continuing operations	**2 658**	**2 707**	***-2***	***1***	**11 314**	**12 041**	***-6***	***-3***
Core net loss from discontinued operations		-48	*nm*	*nm*		-256	*nm*	*nm*
Core net income	**2 658**	**2 659**	***0***	***3***	**11 314**	**11 785**	***-4***	***-1***
Core basic EPS from continuing operations (USD)	**1.12**	**1.14**	***-2***	***1***	**4.75**	**5.01**	***-5***	***-2***
Core basic EPS from discontinued operations (USD)		-0.03	*nm*	*nm*		-0.11	*nm*	*nm*
Total core basic earnings per share (USD)	**1.12**	**1.11**	***1***	***3***	**4.75**	**4.90**	***-3***	***0***

nm = not meaningful

On January 27, 2016, Novartis announced plans to further focus our divisions, integrating businesses that share therapeutic areas to better leverage our development and marketing capabilities. These plans included the transfer of the Ophthalmic Pharmaceuticals franchise from the Alcon Division to the Innovative Medicines Division (formerly named the Pharmaceuticals Division), and the transfer of selected mature products from the Innovative Medicines Division to the Sandoz Division. Operationally, these transfers were completed as of April 1, 2016. The centralization of manufacturing and integration of some drug development functions, also announced on January 27, 2016, were completed as of July 1, 2016.

In compliance with International Financial Reporting Standards (IFRS), Novartis updated its segment financials to reflect these transfers, both for the current and prior year, to aid comparability of year-on-year results. As a result, all comparisons of divisional results from 2016 to 2015 reflect this new divisional structure.

In addition, in 2015, Novartis completed a series of portfolio transformation transactions, including the acquisition of oncology assets from GSK and a 36.5% interest in GSK Consumer Healthcare Holdings Ltd., and the divestment of its Vaccines and Animal Health businesses. To reflect these transactions, Novartis reported the Group's financial results in 2015 as "continuing operations" and "discontinued operations." All comparisons from 2016 to 2015 are versus continuing operations, unless otherwise noted. See page 41 for a full explanation.

[1] Continuing and discontinued operations are defined on page 41. In the prior-year quarter, net income from discontinued operations and net income of the Group include exceptional divestment gains.
[2] Constant currencies (cc), core results and free cash flow are non-IFRS measures. An explanation of non-IFRS measures can be found on page 50. Unless otherwise noted, all growth rates in this Release refer to same period in prior year.
[3] FY 2015 included USD 12.7 billion of exceptional pre-tax divestment gains from the portfolio transformation transactions and USD 0.6 billion of additional pre-tax transaction related expenses.

Fourth quarter

Net sales
Net sales were USD 12.3 billion (-2%, 0% cc) in the fourth quarter, as volume growth of 6 percentage points was offset by the negative impact of generic competition (-4 percentage points) and pricing (-2 percentage points). Growth Products[1] contributed USD 4.6 billion or 37% of net sales, up 19% (USD) over the prior-year quarter.

Corporate income and expense, net
Corporate income and expense, which includes the cost of Group management and central services, amounted to a net expense of USD 150 million, compared to a net expense of USD 142 million in the prior-year quarter. There was a reduction in G&A expenses in the fourth quarter of 2016, but this was partially offset by lower royalty income. The prior-year quarter also benefitted from a gain on the sale of real estate in Switzerland.

Operating income
Operating income was USD 1.5 billion (-13%, -9% cc), declining mainly due to the impairment of intangible assets. Operating income margin in constant currencies decreased 1.3 percentage points; currency had a negative impact of 0.3 percentage points, resulting in a net decrease of 1.6 percentage points in US dollar terms to 11.8% of net sales.

Core adjustments amounted to USD 1.5 billion (2015: USD 1.4 billion), broadly in line with the prior-year quarter.

Excluding these items, core operating income was USD 3.0 billion (-1%, +1% cc). Core operating income margin in constant currencies increased 0.2 percentage points, as investments behind new launches and the Alcon growth plan were more than offset by resource allocation. Currency had a negative impact of 0.1 percentage points, resulting in a net increase of 0.1 percentage points in US dollar terms to 24.5% of net sales.

Income from associated companies
Income from associated companies amounted to USD 156 million, compared to USD 10 million in the prior-year quarter. The increase was mainly due to income of USD 36 million from our investment in GSK Consumer Healthcare Holdings Ltd., compared to a loss of USD 76 million recorded in the prior-year quarter. The income contribution from Roche Holding AG (Roche) also increased to USD 120 million compared to USD 85 million in the prior-year quarter.

Core income from associated companies increased to USD 280 million from USD 243 million in the prior-year quarter, due to higher core income contribution from both GSK Consumer Healthcare Holdings Ltd. and Roche.

Interest expense and other financial income/expense
Interest expense was USD 168 million, broadly in line with the prior-year quarter.

Other financial income and expense amounted to an expense of USD 365 million, including exceptional charges related to Venezuela of USD 305 million, while the prior-year quarter expense of USD 398 million included exceptional charges of USD 346 million related to Venezuela.

Taxes
The tax rate from continuing operations increased to 13.2% from 6.8% in the prior-year quarter, which is lower than the full-year reported tax rate, mainly as a result of the higher true-up adjustment to the full-year reported tax rate in the prior-year period.

The prior-year quarter tax rate included in addition the full-year 2015 beneficial impact of the US R&D tax credit which was enacted in December 2015.

The core tax rate from continuing operations increased to 14.5% from 13.0% in the prior-year quarter. This increase was mainly a result of a change in core profit mix to jurisdictions with higher tax rates and the effect of adjusting to the full-year core tax rate which was less than previously estimated.

[1] "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.

Net income and EPS
Net income was USD 0.9 billion (-11%, 0% cc), flat despite the decline in operating income due to higher income from associated companies.

EPS was USD 0.40 (-9%, +2% cc), up more than net income due to a reduction in the average number of shares outstanding.

Core net income was USD 2.7 billion (-2%, +1% cc), broadly in line with core operating income.

Core EPS was USD 1.12 (-2%, +1% cc), in line with core net income.

Total Group
For the total Group, net income amounted to USD 0.9 billion, compared to USD 1.1 billion the prior-year quarter, and basic earnings per share was USD 0.40.

Total Group free cash flow amounted to USD 3.0 billion, in line with the prior-year quarter.

Full year

Net sales
Net sales were USD 48.5 billion (-2%, 0% cc) in the full year, as volume growth of 6 percentage points was offset by the negative impact of generic competition (-4 percentage points) and pricing (-2 percentage points). Growth Products contributed USD 17.1 billion or 35% of net sales, up 20% (USD) over the prior year.

Corporate income and expense, net
Corporate income and expense amounted to a net expense of USD 471 million in 2016 compared to a net expense of USD 419 million in the prior year. The increase was mainly due to lower royalty and other income, as well as costs related to the execution of the initiatives announced on January 27, 2016 to further focus the divisions, centralize manufacturing and integrate some drug development functions. These factors more than offset the reduction in G&A expenses in 2016.

Operating income
Operating income was USD 8.3 billion (-8%, -3% cc). Operating income margin in constant currencies decreased 0.7 percentage points, mainly due to the loss of exclusivity on *Gleevec*, as investments behind new launches and the Alcon growth plan were partially offset by resource allocation and productivity programs. Currency had a negative impact of 0.5 percentage points, resulting in a net decrease of 1.2 percentage points to 17.0% of net sales.

Core adjustments amounted to USD 4.7 billion (2015: USD 4.8 billion), broadly in line with the prior year.

Excluding these items, core operating income was USD 13.0 billion (-6%, -2% cc). Core operating income margin in constant currencies decreased 0.7 percentage points, mainly due to the loss of exclusivity on *Gleevec*, as investments behind new launches and the Alcon growth plan were partially offset by resource allocation and productivity programs. Currency had a negative impact of 0.4 percentage points, resulting in a net decrease of 1.1 percentage points to 26.8% of net sales.

Income from associated companies
Income from associated companies increased to USD 703 million, compared to USD 266 million in the prior year. The increase was mainly due to income recognized from our investment in GSK Consumer Healthcare Holdings Ltd. of USD 234 million compared to a loss of USD 79 million recognized in the prior year. The 2016 income contribution from GSK Consumer Healthcare Holdings Ltd. includes a negative adjustment recorded in the second quarter upon the issuance of 2015 actual results.

In addition, in 2016, we recognized an income of USD 464 million from our investment in Roche, which reflected our estimated share of 2016 income of USD 532 million partly offset by the adjustment for 2015 actual results. The higher contribution from Roche in 2016 was mainly due to a smaller adjustment recognized upon publication of 2015 actual results by Roche compared to the adjustment recorded in the prior year upon publication of the 2014 actual results.

Core income from associated companies increased to USD 1.1 billion from USD 981 million in the prior year. The increase was due to a higher contribution from GSK Consumer Healthcare Holdings Ltd., which accounted for USD 369 million in 2016 compared to USD 213 million in the prior year.

Interest expense and other financial income/expense
Interest expense increased to USD 707 million from USD 655 million in the prior year due to higher outstanding debt.

Other financial income and expense amounted to an expense of USD 447 million, broadly in line with the prior year, mainly on account of exceptional charges related to Venezuela of USD 305 million in 2016, compared to USD 410 million in 2015, as well as higher currency losses recognized in 2016.

Taxes
The tax rate from continuing operations increased to 14.3% from 13.6% in the prior year, mainly as a result of a change in profit mix to jurisdictions with higher rates.

The core tax rate from continuing operations increased to 15.0% from 14.6% in the prior year. This increase was mainly a result of a change in core profit mix to jurisdictions with higher tax rates.

Net income and EPS
Net income was USD 6.7 billion (-5%, +1% cc), with the increase relative to the operating income decline due to higher income from associated companies.

EPS was USD 2.82 (-3%, +2% cc), up more than net income due to a reduction in the average number of shares outstanding.

Core net income was USD 11.3 billion (-6%, -3% cc), broadly in line with core operating income.

Core EPS was USD 4.75 (-5%, -2% cc), down less than core net income due to a reduction in the average number of shares outstanding.

Total Group
For the total Group, net income amounted to USD 6.7 billion compared to USD 17.8 billion in the prior year, and basic earnings per share decreased to USD 2.82 from USD 7.40. The prior year benefitted from the net income from discontinued operations, which included USD 12.7 billion of exceptional pre-tax divestment gains from the portfolio transformation transactions and USD 0.6 billion of additional pre-tax transaction related expenses.

Total Group free cash flow amounted to USD 9.5 billion, compared to USD 9.0 billion in 2015.

Innovative Medicines

	Q4 2016	Q4 2015[1]	% change		**FY 2016**	FY 2015[1]	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Net sales	**8 273**	**8 498**	**-3**	**-1**	**32 562**	**33 345**	**-2**	**0**
Operating income	**1 360**	**1 499**	**-9**	**-4**	**7 426**	**7 815**	**-5**	**0**
As % of net sales	16.4	17.6			22.8	23.4		
Core operating income	**2 407**	**2 411**	**0**	**4**	**10 354**	**10 862**	**-5**	**-1**
As % of net sales	29.1	28.4			31.8	32.6		

The Innovative Medicines Division (formerly named the Pharmaceuticals Division) is comprised of two business units (BUs): Novartis Pharmaceuticals and Novartis Oncology.[2]

Following the new divisional structure announced on January 27, 2016, results from the Innovative Medicines Division in 2016 and 2015 include the Ophthalmic Pharmaceuticals products transferred in from the Alcon Division, and exclude the selected mature products transferred out to Sandoz.

Fourth quarter

Net sales
Net sales were USD 8.3 billion (-3%, -1% cc) in the fourth quarter. Volume contributed 6 percentage points to sales growth. Generic competition had a negative impact of 6 percentage points and pricing had a negative impact of 1 percentage point, both largely due to *Gleevec/Glivec* genericization in the US. Growth Products[3] grew 20% (cc) to USD 4.0 billion, or 48% of division net sales.

Regionally, Europe sales (USD 2.8 billion, +5% cc) grew, mainly driven by *Cosentyx*, *Gilenya* and *Jakavi.* US sales (USD 2.8 billion, -6% cc) declined due to generic competition, largely for *Gleevec/Glivec,* which offset the strong performance of Growth Products. Japan sales (USD 0.6 billion, -11% cc) declined, mainly due to the divestment of 14 Established Medicines brands in March and the generic impact for *Exforge* and *Diovan*. Emerging Growth Markets sales increased 6% (cc) to USD 2.1 billion.

Novartis Pharmaceuticals BU sales were USD 5.1 billion (+4% cc). Ophthalmology sales declined, mainly due to competition for *Lucentis* (USD 452 million, -6% cc). In Neuroscience, *Gilenya* (USD 810 million, +11% cc) saw strong growth, which offset *Exelon/Exelon* Patch (USD 114 million, -17% cc) sales decline due to generic competition. Immunology and Dermatology sales increased 44% (cc) to USD 891 million, underpinned by continued uptake of *Cosentyx* (USD 391 million) in US and Europe. Respiratory performance was driven by continued growth of *Xolair* (USD 216 million, +13% cc) and double-digit growth of the COPD[4] portfolio (USD 164 million, +11% cc). Cardio-Metabolic continued to grow, driven by *Entresto* (USD 68 million), which saw increased penetration in the US and new launches in other countries as the worldwide rollout continues.

Novartis Oncology BU sales were USD 3.2 billion (-7% cc; +8% cc excluding *Gleevec/Glivec*). The sales decline was driven by *Gleevec/Glivec* (USD 764 million, -36% cc) generic impact in the US, partially offset by Growth Products including *Jakavi* (USD 162 million, +40% cc), *Promacta/Revolade* (USD 178 million, +35% cc), *Tasigna* (USD 458 million, +9% cc) and *Tafinlar* + *Mekinist* (USD 178 million, +24% cc).

Operating income
Operating income was USD 1.4 billion (-9%, -4% cc), down mainly due to higher impairment charges, which offset underlying operating income growth. Core adjustments totaled USD 1.0 billion, including USD 605 million for amortization of intangible assets, mainly related to the acquired assets in Oncology and Ophthalmology, and USD 433 million for the impairment of intangible assets. Prior-year core adjustments were USD 912 million.

[1] In compliance with IFRS, Novartis updated its segment financials to reflect the new divisional structure announced on January 27, 2016, to aid comparability of year-on-year results.
[2] See Note 5 to the Condensed Financial Report for a complete description of the segment.
[3] 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.
[4] Our chronic obstructive pulmonary disease (COPD) portfolio consists of *Ultibro Breezhaler/Utibron Neohaler, Onbrez Breezhaler/Arcapta Neohaler* and *Seebri Breezhaler/Seebri Neohaler*. Novartis out-licensed US commercialization rights for the COPD portfolio to Sunovion in the fourth quarter.

Core operating income was USD 2.4 billion (0%, +4% cc). Core operating income margin in constant currencies increased by 1.2 percentage points; currency had a negative impact of 0.5 percentage points, resulting in a net increase of 0.7 percentage points to 29.1% of net sales.

Core gross margin as a percentage of net sales decreased by 0.3 percentage points (cc). Core R&D expenses decreased by 2.2 percentage points (cc), mainly reflecting continued productivity efforts and synergies from acquired Oncology assets. Core M&S expenses increased by 0.8 percentage points (cc), largely due to launch investments for *Entresto* and *Cosentyx*. Core G&A expenses decreased by 0.2 percentage points (cc), and core Other Income and Expense, net decreased the margin by 0.1 percentage points (cc).

Full year

Net sales
Innovative Medicines net sales were USD 32.6 billion (-2%, 0% cc) for the full year, as volume growth (+7 percentage points) was offset by the impact of generic competition (-6 percentage points) and pricing (-1 percentage point).

Europe sales (USD 11.2 billion, +7% cc) grew, while US performance (USD 10.9 billion, -8% cc) was impacted by generic competition. Japan sales (USD 2.5 billion, -10% cc) declined, mainly due to generic competition and divestments. Emerging Growth Markets sales increased 6% (cc) to USD 8.1 billion.

Excluding *Gleevec/Glivec*, Novartis Oncology BU sales grew 12% (cc). The oncology assets acquired from GSK contributed significantly to that growth, in part because the prior year only included ten months of sales (due to closing of the transaction on March 2, 2015). *Jakavi* was also a significant growth driver.

Operating income
Operating income was USD 7.4 billion (-5%, 0% cc) for the full year, as lower legal provisions offset higher impairments and lower operating performance. Core adjustments amounted to USD 2.9 billion, mainly due to USD 2.4 billion of amortization of intangible assets. Prior-year core adjustments were USD 3.0 billion.

Core operating income was USD 10.4 billion (-5%, -1% cc). Core operating income margin in constant currencies decreased by 0.2 percentage points, mainly due to launch investments for *Entresto* and *Cosentyx*, partially offset by productivity improvements; currency had a negative impact of 0.6 percentage points, resulting in a net decrease of 0.8 percentage points to 31.8% of net sales.

Core gross margin as a percentage of net sales decreased by 0.3 percentage points (cc). Core R&D expenses decreased by 0.8 percentage points (cc), as a result of continued productivity efforts and synergies from acquired Oncology assets. Core M&S expenses increased by 0.5 percentage points (cc), largely due to launch investments, while core G&A decreased by 0.1 percentage points (cc). Core Other Income and Expense, net decreased the margin by 0.3 percentage points (cc).

Innovative Medicines product review

All comments below focus on fourth quarter movements in constant currencies.

ONCOLOGY BUSINESS UNIT

	Q4 2016 USD m	Q4 2015 USD m	% change USD	cc	**FY 2016** USD m	FY 2015 USD m	% change USD	cc
Gleevec/Glivec	764	1 219	-37	-36	3 323	4 658	-29	-28
Tasigna	458	432	6	9	1 739	1 632	7	10
Subtotal Bcr-Abl portfolio	**1 222**	**1 651**	**-26**	**-24**	**5 062**	**6 290**	**-20**	**-18**
Sandostatin	408	413	-1	1	1 646	1 630	1	3
Afinitor/Votubia	391	382	2	3	1 516	1 607	-6	-5
Exjade/Jadenu	237	248	-4	-3	956	917	4	6
Votrient	192	176	9	10	729	565	nm	nm
Tafinlar + Mekinist[1]	178	147	21	24	672	453	nm	nm
Promacta/Revolade	178	133	34	35	635	402	nm	nm
Jakavi	162	119	36	40	581	410	42	45
Zykadia	22	24	-8	-11	91	79	15	14
Other	217	226	-4	-1	902	951	-5	-3
Total Oncology Business Unit	**3 207**	**3 519**	**-9**	**-7**	**12 790**	**13 304**	**-4**	**-2**

[1] Majority of sales for *Mekinist* and *Tafinlar* are combination, but both can be used as a monotherapy
nm = not meaningful

Our Bcr-Abl portfolio, consisting of *Tasigna* and *Gleevec/Glivec*, generated sales of USD 1.2 billion (-24% cc) in the fourth quarter.

Tasigna (USD 458 million, +9% cc) showed solid growth in the fourth quarter across key markets globally. *Tasigna* is approved for the treatment of adult patients newly diagnosed with Philadelphia chromosome-positive (Ph+) chronic myeloid leukemia (CML) in the chronic phase, and is also approved for the treatment of adult patients with Ph+ CML in the chronic or accelerated phase who are resistant or intolerant to at least one prior therapy including *Gleevec/Glivec*.

Gleevec/Glivec (USD 764 million, -36% cc) declined, driven by the US, where multiple generic versions have entered the market. *Gleevec/Glivec* is approved in more than 110 countries for the treatment of adult patients in all phases of Ph+ CML, for the treatment of patients with KIT (CD117)-positive gastrointestinal tumors (KIT+ GIST), which cannot be surgically removed and/or have metastasized, and for the treatment of adult patients following complete surgical removal of KIT+ GIST. Not all indications are available in every country.

Afinitor/Votubia (USD 391 million, +3% cc) sales grew in the fourth quarter, driven by new launches in neuroendocrine tumors (NET) of gastrointestinal (GI) or lung origin and growth in advanced breast cancer (aBC) in Japan and other markets. *Afinitor* continues to face competitive pressure, mainly in the US, from new treatment options for aBC and advanced renal cell carcinoma (aRCC). *Afinitor* is approved in combination with exemestane for the treatment of patients with HR+/HER2- aBC after failure with a non-steroidal aromatase inhibitor (in the US, specifically following letrozole or anastrozole), for aRCC following VEGF-targeted therapy (in the US, specifically following sunitinib and sorafenib), for locally advanced, metastatic or unresectable progressive pancreatic NET, and for the treatment of locally advanced, metastatic or unresectable, progressive, well-differentiated, nonfunctional GI or lung NET. *Afinitor* is also approved for treatment of patients with subependymal giant cell astrocytoma associated with tuberous sclerosis complex that requires therapeutic intervention but cannot be curatively resected and the treatment of patients with renal angiomyolipoma associated with tuberous sclerosis complex who do not require immediate surgery. Everolimus, the active ingredient in *Afinitor/Votubia*, is available under the trade names *Zortress/Certican* for use in other non-oncology indications and is exclusively licensed to Abbott and sublicensed to Boston Scientific for use in drug-eluting stents.

Sandostatin (USD 408 million, +1% cc) sales grew in the US, offset by other markets. *Sandostatin* is a somatostatin analogue available in immediate release and long-acting (LAR) injectable formulations and is indicated for the treatment of acromegaly and NET. In NET, Sandostatin LAR is used for patients with symptoms of carcinoid syndrome from gastro-entero-pancreatic NET as well as for tumor control in patients with advanced NET of the midgut or unknown primary tumor location.

Exjade/Jadenu (USD 237 million, -3% cc) sales declined, driven by tender phasing in Emerging Growth Markets, while most major markets grew, led by the US, due to continued uptake of *Jadenu*. *Exjade* is a once-daily dispersible tablet for chronic transfusional iron overload, as well as for chronic iron overload in patients with non-transfusion-dependent thalassemia. *Jadenu*, an oral film-coated tablet formulation, which provides a simpler administration for patients, is approved in the US, Canada and other markets for the same indications as *Exjade*. In the EU, the new oral formulation was approved as *Exjade* Film-Coated Tablet (FCT) in March 2016 with countries launching as of October 2016. Regulatory applications for FCT have been submitted in Switzerland and many other countries worldwide. In addition to the FCT, the new formulation has also been developed as Granules for patients who cannot swallow tablets, using the same composition as the FCT. Regulatory applications for Granules have been submitted under the name *Jadenu* in the US and Japan and under the name *Exjade* in the EU.

Votrient (USD 192 million, +10% cc) grew in all major markets. *Votrient* is a small molecule tyrosine kinase inhibitor (TKI) that inhibits a number of intracellular proteins to limit tumor growth and cell survival, which is approved in the US for the treatment of patients with aRCC, and in the EU for first-line treatment of adult patients with aRCC as well as patients who have received prior cytokine therapy for advanced disease. *Votrient* is also indicated for the treatment of patients with selective subtypes of advanced soft tissue sarcoma (STS) who have received prior chemotherapy or have progressed within 12 months after neoadjuvant therapy (efficacy in adipocytic STS or gastrointestinal stromal tumors has not been demonstrated).

Tafinlar + Mekinist (USD 178 million, +24% cc) performance was driven by strong growth in Europe. *Tafinlar + Mekinist* is the first combination of its kind for the treatment of patients with BRAF V600E/K mutation-positive unresectable or metastatic melanoma, as detected by a validated test, and continues to be the market leader globally across targeted therapy options. It is also the first combination of BRAF and MEK inhibitors to report three years of follow-up survival data in a Phase III study in BRAF V600+ unresectable or metastatic melanoma patients. *Tafinlar* and *Mekinist* are also approved as single agents for the treatment of patients with unresectable or metastatic melanoma in more than 65 and 40 countries worldwide, respectively. In addition, both *Tafinlar* monotherapy and the *Tafinlar + Mekinist* combination have FDA Breakthrough Therapy designation in BRAF mutant non-small cell lung cancer (NSCLC).

Promacta/Revolade (USD 178 million, +35% cc) grew at a strong double-digit rate, driven by continued worldwide uptake as well as growth of the thrombopoietin (TPO) class for chronic immune (idiopathic) thrombocytopenic purpura (ITP). It is the only approved once-daily oral TPO receptor agonist and the only TPO receptor agonist with multiple indications in different disease states and leads the market globally in the TPO class. It is approved in more than 100 countries for the treatment of thrombocytopenia in adult patients with chronic ITP who have had an inadequate response or are intolerant to other treatments. In the US and EU, *Promacta/Revolade* is approved for patients one year and older with chronic ITP who have had an insufficient response to other treatments. It is also approved in 45 countries for the treatment of patients with severe aplastic anemia who are refractory to other treatments, and in more than 50 countries for the treatment of thrombocytopenia in patients with chronic hepatitis C to allow them to initiate and maintain interferon-based therapy.

Jakavi (USD 162 million, +40% cc), an oral inhibitor of the JAK 1 and JAK 2 tyrosine kinases, experienced continued strong growth across all major markets driven by patient gains in the myelofibrosis (MF) indication globally and the launch of the polycythemia vera (PV) indication. It is the first JAK inhibitor indicated for the treatment of disease-related splenomegaly or symptoms in adult patients with primary MF (also known as chronic idiopathic MF), post-polycythemia vera MF or post-essential thrombocythemia MF. *Jakavi* is currently approved in 101 countries for the MF indication, including EU countries, Japan and Canada. More than 65 countries have also approved *Jakavi* for the treatment of adult patients with PV who are resistant to or intolerant of hydroxyurea, including EU countries, Switzerland, Canada and Japan, and regulatory applications have been submitted in other countries. Novartis licensed ruxolitinib from Incyte Corporation for development and commercialization in the areas of oncology, hematology and graft-versus-host disease outside the US. Ruxolitinib is marketed in the US by Incyte under the brand name Jakafi®.

Zykadia (USD 22 million, -11% cc), an oral, selective inhibitor of anaplastic lymphoma kinase (ALK) for ALK+ NSCLC, was impacted by competition in the US. *Zykadia* is approved in more than 60 countries worldwide. In the US, Zykadia was granted accelerated approval for the treatment of patients with ALK+ metastatic NSCLC who have progressed on or are intolerant to crizotinib. The EC also approved a conditional marketing authorization for *Zykadia* as a treatment for adult patients with ALK+ advanced NSCLC previously treated with crizotinib in the EU. Both US and EU approvals are contingent on further verification of clinical benefit in ongoing studies. Additional regulatory reviews for *Zykadia* are underway worldwide.

PHARMACEUTICALS BUSINESS UNIT

OPHTHALMOLOGY

	Q4 2016	Q4 2015	% change		**FY 2016**	FY 2015	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Lucentis	452	499	-9	-6	1 835	2 060	-11	-8
Travoprost Group	161	150	7	7	619	631	-2	-1
Systane Group	100	91	10	11	377	380	-1	3
Topical Olopatadine Group	55	71	-23	-24	335	457	-27	-27
Other	551	580	-5	-4	2 297	2 395	-4	-2
Total Ophthalmology	**1 319**	**1 391**	**-5**	**-4**	**5 463**	**5 923**	**-8**	**-6**

Lucentis (USD 452 million, -6% cc) faced a strong competitive environment, though volume grew versus the prior–year quarter. In December 2016, the EC approved *Lucentis* to treat patients for visual impairment due to choroidal neovascularization (CNV) associated with causes other than neovascular age-related macular degeneration or myopic CNV. With this approval, Lucentis is now approved for six indications and the only treatment available for such a wide range of CNV indications. *Lucentis* is an anti-VEGF therapy specifically designed for the eye, minimizing systemic exposure. The *Lucentis* pre-filled syringe has now launched in 29 countries. *Lucentis* is licensed from Genentech, and Novartis holds the rights to commercialize the product ex-US. Genentech holds the rights to commercialize *Lucentis* in the US.

Travoprost Group (USD 161 million, +7% cc), including ***Travatan***, ***TravatanZ*** and ***DuoTrav***, is indicated for the reduction of elevated intraocular pressure (IOP) in patients with open-angle glaucoma or who have ocular hypertension. Sales for the Travoprost Group grew, driven by the US, while competition for *Travatan* from branded generics in Europe continued. Single agent travoprost products (*Travatan*, *TravatanZ*, *Travatan* BAK-Free and *Izba*) are prescribed as first-line agents and are marketed in more than 140 countries, including the US, EU countries, Canada and China. *DuoTrav (*travoprost and timolol) is a fixed-dose combination solution approved as a second-line treatment and currently marketed in more than 140 countries, including the EU countries, Canada and China.

Systane **Group** (USD 100 million, +11% cc) saw growth momentum driven by emerging markets and investments in direct-to-consumer advertising. The *Systane* portfolio is a comprehensive offering of ocular health solutions, most of which are indicated for the temporary relief of burning and irritation due to dryness of the eye. The *Systane* portfolio includes products for daily and nighttime relief, as well as products for everyday lid hygiene, and for discomfort associated with contact lens wear. *Systane Ultra* is sold in more than 90 countries, including the US, Canada, EU countries, Latin America and Asia. *Systane Balance* is sold in more than 65 countries. *Systane Hydration*, a novel combination that includes hyaluronic acid, is sold in more than 35 countries across Europe, Canada and Australia.

Topical Olopatadine Group (USD 55 million, -24% cc), which includes ***Patanol***, ***Pataday*** and ***Pazeo***, saw sales decline mainly driven by *Patanol* generic impact in the US. *Patanol, Pataday* and *Pazeo* are olopatadine hydrochloride ophthalmic solutions of different concentrations that are approved to treat the signs and symptoms of allergic conjunctivitis (*Patanol*), as well as ocular itching associated with allergic conjunctivitis (*Pataday* and *Pazeo*). Olopatadine products are marketed in more than 100 countries, including the US, EU countries, Canada and China.

NEUROSCIENCE

	Q4 2016 USD m	Q4 2015 USD m	% change USD	% change cc	**FY 2016** USD m	FY 2015 USD m	% change USD	% change cc
Gilenya	810	742	9	11	3 109	2 776	12	14
Exelon/Exelon Patch	114	135	-16	-17	444	728	-39	-39
Other	30	30	0	0	124	141	-12	-12
Total Neuroscience	**954**	**907**	**5**	**6**	**3 677**	**3 645**	**1**	**2**

Gilenya (USD 810 million, +11% cc), the first once-daily oral therapy to treat relapsing forms of multiple sclerosis (RMS), continued to grow double-digit, mainly due to volume growth. *Gilenya* is approved in over 80 countries. *Gilenya* has been used to treat more than 180,000 patients in both clinical trials and the post-marketing setting, with the total patient exposure now at more than 395,000 patient years. *Gilenya* is licensed from Mitsubishi Tanabe Pharma.

***Exelon*/*Exelon* Patch** (USD 114 million, -17% cc) declined due to generic competition for *Exelon* Patch in the US and EU. *Exelon* Patch is approved for the treatment of mild-to-moderate Alzheimer's disease dementia (AD) in more than 85 countries, and severe AD in 14 countries, including the US. *Exelon* Patch is also indicated for the treatment of Parkinson's disease dementia in more than 20 countries.

IMMUNOLOGY and DERMATOLOGY (I and D)

	Q4 2016 USD m	Q4 2015 USD m	% change USD	% change cc	**FY 2016** USD m	FY 2015 USD m	% change USD	% change cc
Cosentyx	391	121	nm	nm	1 128	261	nm	nm
Neoral/Sandimmun(e)	126	144	-13	-13	515	570	-10	-9
Zortress/Certican	104	89	17	18	398	335	19	22
Myfortic	91	115	-21	-13	383	441	-13	-6
Ilaris	75	63	19	20	283	236	20	22
Other	46	38	21	22	172	160	8	9
Total I and D (excl. everolimus stent drug)	**833**	**570**	**46**	**49**	**2 879**	**2 003**	**44**	**47**
Everolimus stent drug	58	58	0	1	136	134	1	1
Total I and D	**891**	**628**	**42**	**44**	**3 015**	**2 137**	**41**	**44**

[1] *Xolair* sales for all indications are reported in the Respiratory franchise
nm = not meaningful

Cosentyx (USD 391 million) continued to show strong growth in the fourth quarter. Launched in February 2015, *Cosentyx* has been used to treat more than 60,000 patients in a post-marketing setting to date. *Cosentyx* is the only fully human monoclonal antibody that selectively neutralizes circulating interleukin-17A (IL-17A) and is approved to treat psoriasis (PsO), ankylosing spondylitis (AS) and psoriatic arthritis (PsA). In clinical trials, *Cosentyx* has shown superiority over Enbrel® and Stelara®, providing rapid and sustainable efficacy for patients with PsO. In January 2015, Cosentyx became the first IL-17A inhibitor and biologic approved in the EU as a first-line systemic treatment of moderate-to-severe plaque PsO in adult patients, and in the US as a treatment for moderate-to-severe plaque PsO in adult patients who are candidates for systemic therapy or phototherapy. *Cosentyx* is approved for the treatment of moderate-to-severe plaque PsO in over 65 countries to date, including the US, EU countries, Switzerland, Canada and Australia. *Cosentyx* is also approved in more than 55 countries for the treatment of adults with AS and PsA, including the US, EU countries, Canada and Australia. In Japan, *Cosentyx* is approved for the treatment of moderate-to-severe plaque PsO, pustular PsO and PsA.

Xolair continued its strong growth globally and is currently approved in over 80 countries, including the EU countries and Switzerland, as a treatment for chronic spontaneous urticaria (CSU), also known as chronic idiopathic urticaria (CIU), for which it is approved in the US, Canada and Australia. *Xolair* has now been launched for CSU/CIU in over 40 countries, including the US, Switzerland, Canada and several EU countries. *Xolair* as a treatment for moderate-to-severe or severe persistent allergic asthma (SAA) is addressed below in the Respiratory section, and all *Xolair* sales are booked in the Respiratory franchise. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of the operating income, but does not book US sales.

Neoral/Sandimmun(e) (USD 126 million, -13% cc) is an immunosuppressant to prevent organ rejection following a kidney, liver, heart or lung transplant. It is also indicated for the treatment of selected autoimmune disorders, such as psoriasis and rheumatoid arthritis. Although sales are declining as expected due to generic competition and mandatory price reductions, most notably in the US, Europe and Japan, the decrease is not as rapid as has been the case in other therapeutic areas, due to the special characteristics of the solid organ transplant market.

Zortress/Certican (USD 104 million, +18% cc), available in more than 90 countries to prevent organ rejection in adult heart and kidney transplant patients, continued to show strong growth. It is also approved for liver transplant patients in over 70 countries, including EU countries and the US. Everolimus, the active ingredient in *Zortress*/*Certican*, is marketed for other indications under the trade names *Afinitor*/*Votubia*. Everolimus is exclusively licensed to Abbott and sublicensed to Boston Scientific for use in drug-eluting stents.

Myfortic (USD 91 million, -13% cc), a transplantation medicine, declined due to loss of exclusivity in several markets. *Myfortic* continued to grow in geographies where generic competition has not yet begun.

Ilaris (USD 75 million, +20% cc) continued to grow as a treatment for adults and children with cryopyrin-associated periodic syndrome (CAPS), for which it is approved in more than 70 countries. *Ilaris* is also approved for the treatment of active systemic juvenile idiopathic arthritis (SJIA) – an important growth driver for the product – in the US, EU and other countries, and is also available for the symptomatic treatment of refractory acute gouty arthritis in the EU. In 2016, *Ilaris* was approved for patients with Adult-Onset Still's Disease in Europe, and for three rare and distinct types of Periodic Fever Syndromes, also known as Hereditary Periodic Fevers, in the US and Japan. The CHMP recommended approval of the same three Periodic Fever Syndromes in December 2016.

RESPIRATORY

	Q4 2016	Q4 2015	% change		**FY 2016**	FY 2015	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Ultibro Breezhaler	90	76	18	20	363	260	40	38
Seebri Breezhaler	38	37	3	9	149	150	-1	2
Onbrez Breezhaler/*Arcapta Neohaler*	36	38	-5	-5	143	166	-14	-8
COPD portfolio	**164**	**151**	**9**	**11**	**655**	**576**	**14**	**16**
Xolair[1]	216	197	10	13	835	755	11	15
Other	8	9	-11	1	31	37	-16	-6
Total Respiratory	**388**	**357**	**9**	**12**	**1 521**	**1 368**	**11**	**15**

[1] Revenue, which is ex-US only, reflects *Xolair* sales for all indications (including CSU/CIU, which is managed by the Immunology and Dermatology franchise)

The COPD portfolio, which consists of ***Ultibro Breezhaler/Utibron Neohaler***, ***Onbrez Breezhaler/Arcapta Neohaler*** and ***Seebri Breezhaler/Seebri Neohaler***, grew 11% (cc) to USD 164 million. All three products in the COPD portfolio are delivered via the low-resistance *Breezhaler/Neohaler* inhalation device. Following the announcement on December 21, 2016, Sunovion Pharmaceuticals Inc. assumes US commercialization rights for *Utibron Neohaler, Arcapta Neohaler and Seebri Neohaler.* Novartis will continue to bring *Ultibro Breezhaler, Onbrez Breezhaler* and *Seebri Breezhaler* to patients with COPD outside of the US.

Ultibro Breezhaler/Utibron Neohaler (USD 90 million, +20% cc), a LABA/LAMA, continued to grow strongly, fuelled by the FLAME study positive results and the GOLD guidelines, which recommended LABA/LAMA as the preferred option in the majority of symptomatic patients regardless of their exacerbation risk. *Ultibro Breezhaler*, a first-in-class dual bronchodilator, is approved in over 90 countries, including Japan and EU countries. It is a once-daily fixed-dose combination of indacaterol and glycopyrronium bromide, and in the EU is indicated as a maintenance bronchodilator treatment to relieve symptoms in adult patients with COPD.

Seebri Breezhaler/Seebri Neohaler (USD 38 million, +9% cc), an inhaled LAMA is approved in over 90 countries and indicated as a once-daily maintenance bronchodilator treatment to relieve symptoms of patients with COPD. Glycopyrronium bromide and certain use and formulation intellectual property were exclusively licensed to Novartis in April 2005 by Sosei and Vectura.

Onbrez Breezhaler/Arcapta Neohaler (USD 36 million, -5% cc), a once-daily inhaled LABA, declined, due in part to a focus of resources on *Ultibro Breezhaler*. *Onbrez Breezhaler/Arcapta Neohaler* is indicated as a maintenance bronchodilator treatment of airflow obstruction in adult patients with COPD, and is approved in over 100 countries.

Xolair (USD 216 million, +13%), currently approved in more than 90 countries as a treatment for moderate-to-severe or severe persistent allergic asthma, continued to grow double-digit. In July, the FDA approved an expanded age range for *Xolair* to include children six to 11 years of age with moderate to severe persistent asthma. Worldwide, *Xolair* is the first biologic approved for adults and children with moderate-to-severe allergic asthma. *Xolair* as a treatment for CSU/CIU is addressed earlier in the Immunology and Dermatology section. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of the operating income, but does not book US sales.

CARDIO-METABOLIC

	Q4 2016	Q4 2015	% change		**FY 2016**	FY 2015	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Galvus	298	294	1	0	1 193	1 140	5	6
Entresto	68	5	nm	nm	170	21	nm	nm
Other	4	0	nm	nm	14	0	nm	nm
Total Cardio-Metabolic	**370**	**299**	**24**	**23**	**1 377**	**1 161**	**19**	**20**

Entresto (USD 68 million) (sacubitril/valsartan) showed solid growth in the fourth quarter, benefitting from the strong Class 1 recommendation in both US and EU heart failure treatment guidelines, as well as the continued US field force expansion to reach more primary care physicians. Uptake in Europe and the rest of the world continued to accelerate with new approvals and expanding access. *Entresto* is approved in more than 70 countries and launched in more than 30 countries to date, and has been used to treat more than 150,000 patients with heart failure with reduced ejection fraction worldwide since July 2015. *Entresto*, a novel angiotensin receptor neprilysin inhibitor (ARNI), demonstrated significant superiority in mortality (20%) over and above enalapril in the PARADIGM-HF trial, representing the first major advance in heart failure in over two decades.

***Galvus* Group** (USD 298 million, 0% cc) sales were flat, reflecting increased competition and volatility in emerging markets. The Group includes *Galvus*, an oral treatment for type-2 diabetes, and *Eucreas*, a single-pill combination of vildagliptin (the active ingredient in *Galvus*) and metformin. The focus for *Galvus* remains on patients whose diabetes is uncontrolled on metformin, earlier treatment intensification as well as on expansion of usage in key segments, such as elderly and renal-impaired patients. The *Galvus* Group is currently approved in more than 125 countries.

ESTABLISHED MEDICINES

	Q4 2016	Q4 2015	% change		**FY 2016**	FY 2015	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Diovan/Co-Diovan	257	292	-12	-8	1 073	1 284	-16	-13
Exforge	237	249	-5	-2	926	1 047	-12	-8
Voltaren/Cataflam	136	140	-3	9	525	558	-6	1
Ritalin/Focalin	73	80	-9	-10	282	365	-23	-21
Other	441	636	-31	-26	1 913	2 553	-25	-21
Total Established Medicines	**1 144**	**1 397**	**-18**	**-14**	**4 719**	**5 807**	**-19**	**-15**

***Diovan* Group** (USD 257 million, -8% cc), consisting of *Diovan* monotherapy and the combination product *Co-Diovan*/*Diovan HCT*, saw sales decline due to loss of exclusivity including in the US, EU countries and Japan for both *Diovan* and *Co-Diovan*/*Diovan HCT*. *Diovan* and *Co-Diovan*/*Diovan HCT* are still growing in emerging markets.

***Exforge* Group** (USD 237 million, -2% cc), which includes *Exforge* and *Exforge HCT*, declined due to generic competition in the US and Japan. *Exforge* maintained value in Europe and grew in emerging markets, including China. Generic competition for *Exforge* began in some European countries in January 2017. *Exforge HCT* is growing in almost all regions.

Voltaren/Cataflam (USD 136 million, +9% cc) is the leading international brand by sales and is still growing in the non-steroidal anti-inflammatory drugs (NSAIDs) market for the relief of symptoms in rheumatic diseases, such as rheumatoid arthritis and osteoarthritis, and for various other inflammatory and pain conditions. This product is subject to generic competition and, in various countries, Sandoz markets generic versions of *Voltaren*.

Ritalin/Focalin (USD 73 million, -10% cc) is a treatment for attention deficit hyperactivity disorder (ADHD). *Ritalin* and *Ritalin LA* are available in more than 70 and 30 countries, respectively, and are also indicated for narcolepsy. *Focalin* and *Focalin XR* are available in the US, and *Focalin XR* is also approved in Switzerland. Most strengths of *Ritalin* and *Focalin* are subject to generic competition in the US.

Sandoz

	Q4 2016	Q4 2015[1]	% change		FY 2016	FY 2015[1]	% change	
	USD m	USD m	USD m	cc	USD m	USD m	USD	cc
Net sales	**2 605**	**2 554**	**2**	**3**	**10 144**	**10 070**	**1**	**2**
Operating income	**365**	**291**	**25**	**22**	**1 445**	**1 300**	**11**	**14**
As % of net sales	14.0	11.4			14.2	12.9		
Core operating income	**521**	**497**	**5**	**4**	**2 071**	**2 045**	**1**	**4**
As % of net sales	20.0	19.5			20.4	20.3		

Following the new divisional structure announced on January 27, 2016, results from the Sandoz Division in 2016 and 2015 include the selected mature products transferred from the Innovative Medicines Division.

Fourth quarter

Net sales
Sandoz net sales were USD 2.6 billion (+2%, +3% cc) in the fourth quarter, as volume growth of 9 percentage points was offset by 6 percentage points of price erosion.

Sales in the US were USD 962 million (+3% cc), as continued strong performance in Biopharmaceuticals more than offset ongoing price erosion. Sales in Western Europe were USD 715 million (+4% cc), with strong growth in Germany, France and Italy. Central and Eastern Europe sales were USD 295 million (+16% cc), largely driven by Russia, despite the continued impact of the negative macroeconomic environment in the region. In emerging markets, Middle East and Africa sales grew 12% (cc) to USD 129 million, while Latin America sales grew 6% (cc) to USD 84 million. Asia Pacific sales were USD 194 million (-5% cc), as the slowdown in China and commercial exit of low-margin businesses more than offset growth in Japan.

Global sales of Biopharmaceuticals (including biosimilars, biopharmaceutical contract manufacturing and *Glatopa*) grew 28% (cc) to USD 277 million driven by its three in-market biosimilars – *Zarzio/Zarxio* (filgrastim), *Binocrit* (epoetin alfa) and *Omnitrope* (somatropin) – as well as *Glatopa*. Anti-infectives sales (including partner label and finished dosage form sales) were USD 356 million (0% cc), reflecting the discontinuation of low-margin products.

Operating income
Operating income was USD 365 million (+25%, +22% cc), driven by strong operating performance in the quarter and legal provisions in the prior-year quarter. Core adjustments amounted to USD 156 million, mainly due to USD 120 million of amortization and impairments of intangible assets and USD 39 million of net restructuring charges. Prior-year core adjustments were USD 206 million, mainly due to amortization and impairments of intangible assets, legal provisions and restructuring charges.

Core operating income was USD 521 million (+5%, +4% cc). Core operating income margin in constant currencies increased by 0.1 percentage points; currency had a positive impact of 0.4 percentage points, resulting in a net increase of 0.5 percentage points to 20.0% of net sales.

Core gross margin as a percentage of net sales increased by 0.7 percentage points (cc), driven by favorable sales mix and ongoing productivity improvements. Core R&D expenses decreased by 0.2 percentage points (cc), as sales growth compensated for investments in key pipeline projects for biosimilars. Core SG&A expenses decreased by 0.5 percentage points (cc), largely driven by sales growth and continued productivity improvements. Core Other Income and Expense, net decreased the margin by 1.3 percentage points (cc), largely due to non-recurring items in the prior-year quarter.

[1] In compliance with IFRS, Novartis updated its segment financials to reflect the new divisional structure announced on January 27, 2016, to aid comparability of year-on-year results.

Full year

Net sales

Sandoz net sales were USD 10.1 billion (+1%, +2% cc) for the full year, as volume growth of 8 percentage points more than offset 6 percentage points of price erosion. Performance was driven by growth in most regions, including Western Europe (+3% cc), Central and Eastern Europe (+7% cc), Latin America (+11% cc), the US (+1% cc) and Middle East and Africa (+6% cc), while Asia Pacific was flat compared to the prior year (cc).

Global sales of Biopharmaceuticals grew 31% (cc) to reach USD 1.0 billion, benefitting from the performance of prior-year launches in the US (*Glatopa* in June 2015 and *Zarxio* in September 2015). Anti-infectives sales (including partner label and finished dosage form sales) were USD 1.4 billion (-2% cc). Excluding finished dosage form sales, Anti-Infectives franchise sales were USD 519 million (-10% cc), reflecting discontinued low-margin products and the weak flu season in the first quarter.

Operating income

Operating income was USD 1.4 billion (+11%, +14% cc), driven by strong operating performance in 2016 and higher restructuring charges and legal provisions in the prior year. Core adjustments amounted to USD 626 million, including USD 525 million of amortization and impairments of intangible assets and USD 100 million of net restructuring charges. Prior-year core adjustments were USD 745 million, mainly due to amortization and impairments of intangible assets, restructuring charges and legal provisions.

Core operating income was USD 2.1 billion (+1%, +4% cc). Core operating income margin in constant currencies increased by 0.2 percentage points; currency had a negative impact of 0.1 percentage points, resulting in a net increase of 0.1 percentage points to 20.4% of net sales.

Core gross margin as a percentage of net sales decreased by 0.1 percentage points (cc), as unfavorable sales mix and continued price erosion offset ongoing productivity improvements. Core R&D expenses increased by 0.2 percentage points (cc), driven by strategic investments in biosimilars and other key pipeline projects. Core SG&A expenses decreased by 0.4 percentage points (cc), with sales growth and continued productivity improvements compensating for investments in biosimilars. Core Other Income and Expense, net increased the margin by 0.1 percentage points (cc).

Alcon

	Q4 2016 USD m	Q4 2015[1] USD m	% change USD	% change cc	FY 2016 USD m	FY 2015[1] USD m	% change USD	% change cc
Net sales	**1 444**	**1 468**	**-2**	**0**	**5 812**	**5 999**	**-3**	**-2**
Operating loss/income	**-120**	**29**	**nm**	**nm**	**-132**	**281**	**nm**	**nm**
As % of net sales	-8.3	2.0			-2.3	4.7		
Core operating income	**163**	**264**	**-38**	**-36**	**850**	**1 235**	**-31**	**-27**
As % of net sales	11.3	18.0			14.6	20.6		

Following the new divisional structure announced on January 27, 2016, results from the Alcon Division in 2016 and 2015 exclude the Ophthalmic Pharmaceuticals products transferred to the Innovative Medicines Division.

Fourth quarter

Net sales
Alcon net sales were USD 1.4 billion (-2%, 0% cc) in the fourth quarter. Surgical sales (-4% cc) were down, mainly due to lower sales of Cataract and Refractive equipment, as well as competitive pressures in IOLs. Vision Care sales (+5% cc) returned to growth, driven by strong performance of the daily contact lens portfolio, including continued double-digit growth of *Dailies Total1* globally.

Regionally, sales in Europe, Middle East and Africa were flat. Sales in Japan (+1% cc) and North America (+1% cc) grew, driven by Vision Care. Emerging Growth Markets declined (-5% cc), mainly due to weaker Surgical performance in Asia.

Operating loss/income
Operating loss was USD 120 million, compared to an income of USD 29 million in the prior-year quarter, impacted by increased investments in M&S and R&D behind the growth plan. Core adjustments amounted to USD 283 million, primarily due to amortization of intangible assets and other net costs. Prior-year core adjustments were USD 235 million due to amortization and other net costs.

Core operating income was USD 163 million (-38%, -36% cc), impacted by increased investments in M&S and R&D behind the growth plan. Core operating income margin in constant currencies decreased by 6.3 percentage points; currency had a negative impact of 0.4 percentage points, resulting in a net decrease of 6.7 percentage points to 11.3% of net sales.

Core gross margin as a percentage of net sales increased 0.4 percentage points (cc) versus the prior–year quarter. Core R&D expenses increased by 0.8 percentage points (cc), driven by pipeline investments, mainly in IOLs. Core SG&A expenses increased by 6.0 percentage points (cc) behind investments to drive growth, including DTC advertising for key Vision Care brands. Core Other Income and Expense, net increased the margin by 0.1 percentage points (cc).

Full year

Net sales
Alcon net sales were USD 5.8 billion (-3%, -2% cc) for the full year. Surgical sales (-3% cc) reflected lower sales of Cataract and Refractive equipment, as well as competitive pressures in IOLs, partially offset by continued solid growth of cataract consumables. Vision Care sales were flat (0% cc), with growth in contact lenses offsetting a decline in contact lens care.

[1] In compliance with IFRS, Novartis updated its segment financials to reflect the new divisional structure announced on January 27, 2016, to aid comparability of year-on-year results.

Operating loss/income
Operating loss was USD 132 million, compared to an income of USD 281 million in the prior year, impacted by increased investment in M&S and R&D behind the growth plan and the decline in sales. Core adjustments amounted to USD 982 million, primarily due to amortization of intangible assets, restructuring charges and other net costs. Prior-year core adjustments were USD 954 million due to amortization, restructuring charges and other net costs.

Core operating income was USD 850 million (-31%, -27% cc), impacted by increased investments in M&S and R&D behind the growth plan and the decline in sales. Core operating income margin in constant currencies decreased by 5.3 percentage points; currency had a negative impact of 0.7 percentage points, resulting in a net decrease of 6.0 percentage points to 14.6% of net sales.

Core gross margin as a percentage of net sales decreased by 0.4 percentage points (cc). Core R&D expenses increased by 0.6 percentage points (cc), driven by investments in key pipeline projects. Core SG&A expenses increased by 4.7 percentage points (cc) behind investments to promote key Vision Care brands and new launches. Core Other Income and Expense, net increased the margin by 0.4 percentage points (cc).

Alcon product review

All comments below focus on fourth quarter movements in constant currencies.

SURGICAL

	Q4 2016	**Q4 2015**	% change		**FY 2016**	**FY 2015**	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Cataract products	679	715	-5	-3	2 695	2 853	-6	-3
IOLs	*239*	*267*	*-10*	*-7*	*986*	*1 099*	*-10*	*-7*
Consumables	*354*	*350*	*1*	*2*	*1 390*	*1 363*	*2*	*4*
Equipment	*86*	*98*	*-12*	*-13*	*319*	*391*	*-18*	*-17*
Vitreoretinal products	161	152	6	5	616	594	4	4
Refractive/Other	47	70	-33	-31	207	251	-18	-16
Total Surgical	**887**	**937**	**-5**	**-4**	**3 518**	**3 698**	**-5**	**-3**

Surgical sales were USD 887 million (-4% cc) in the fourth quarter. IOL sales (-7% cc) declined, mainly due to competitive pressures. Cataract equipment (-13% cc) continued to decline, primarily due to *LenSx*, which has reached high penetration in its market segment. Cataract consumables (+2% cc) grew, benefitting from the strong installed equipment base. Refractive/Other sales declined (-31% cc) due to a high prior-year base in equipment, resulting from the prior-year agreement with the largest refractive provider in the US.

VISION CARE

	Q4 2016	Q4 2015	% change		**FY 2016**	**FY 2015**	% change	
	USD m	USD m	USD	cc	USD m	USD m	USD	cc
Contact lenses	420	393	7	7	1 762	1 743	1	2
Contact lens care	137	138	-1	-2	532	558	-5	-5
Total Vision Care	**557**	**531**	**5**	**5**	**2 294**	**2 301**	**0**	**0**

Vision Care sales were USD 557 million (+5% cc) in the fourth quarter. Contact lenses (+7% cc) continued to grow, driven by strong performance of the daily portfolio, including continued double-digit growth of *Dailies Total1* globally, benefitting from increased DTC advertising and promotion. Contact lens care (-2% cc) declined as a result of the continued market shift to daily disposable lenses.

Consolidated financial statements reflecting the portfolio transformation

Following the announcement of our portfolio transformation transactions on April 22, 2014, Novartis reported the Group's financial results for the current and prior years as "continuing operations" and "discontinued operations."

Continuing operations comprise the businesses of the Innovative Medicines, Sandoz and Alcon Divisions and the continuing Corporate activities. Continuing operations also include the results from Oncology assets acquired from GSK and the results from the 36.5% interest in GSK Consumer Healthcare Holdings Ltd. for the period from March 2, 2015 (the latter reported as part of income from associated companies).

Discontinued operations included in 2015 the operational results from the Vaccines influenza business, prior to its divestment to CSL Limited on July 31, 2015, as well as results from the Vaccines non-influenza business and the OTC business until March 2, 2015. Operational results from the Animal Health business, which was divested on January 1, 2015, include only the divestment gain.

Discontinued operations also included in 2015 the exceptional pre-tax gains of USD 12.7 billion from the divestment of Animal Health (USD 4.6 billion) and from the transactions with GSK (USD 2.8 billion from the Vaccines non-influenza business and USD 5.9 billion arising from the contribution of Novartis OTC into GSK Consumer Healthcare Holdings Ltd.). In addition, the GSK transactions resulted in USD 0.6 billion of additional pre-tax transaction-related costs, which were expensed and reported in Corporate discontinued operations.

Excluded from discontinued operations are certain intellectual property rights and related other revenues of the Vaccines Division, which are retained by Novartis and are now reported under Corporate activities.

As required by IFRS, the results of the discontinued operations excluded any depreciation and amortization related to discontinued operations from the date of the portfolio transformation announcement of April 22, 2014 through the completion of the related transactions.

CASH FLOW AND GROUP BALANCE SHEET

Cash flow

Fourth quarter
Cash flows from operating activities of continuing operations in the fourth quarter amounted to USD 3.6 billion, compared to USD 4.1 billion in the prior-year quarter. The decrease of USD 0.5 billion was driven by lower operating income adjusted for non-cash items, lower hedging results, higher cash outflows due to phasing of tax payments and other operating cash flow items, partially offset by dividends received from GSK Consumer Healthcare Holdings Ltd. and lower payments out of provisions.

Cash flows used in investing activities from continuing operations amounted to USD 0.8 billion in the fourth quarter. This amount includes cash outflows of USD 0.6 billion for the purchase of property, plant and equipment, USD 0.3 billion for intangible, financial and other non-current assets, and USD 0.2 billion for acquisitions and divestments of businesses, net (mainly for the acquisition of Selexys Pharmaceuticals Corporation), partially offset by USD 0.3 billion proceeds from the sale of non-current assets. In the prior-year quarter, cash flows used in investing activities from continuing operations amounted to USD 1.5 billion, primarily due to the net cash outflow of USD 1.2 billion for the purchase of property, plant and equipment, intangibles and other non-current assets.

Cash flows used in investing activities from discontinued operations amounted to USD 0.2 billion in the fourth quarter due to portfolio transformation transactions payments, including capital gains taxes, and were broadly in line with the prior-year quarter.

The cash flows used in financing activities amounted to USD 2.3 billion, compared to USD 2.8 billion in the prior-year quarter. The fourth quarter of 2016 includes the reduction of short-term borrowings of USD 2.1 billion and an outflow of USD 0.2 billion for treasury share transactions, net. The prior-year quarter included a net outflow of USD 0.7 billion for financial debts and an outflow of USD 2.1 billion for treasury share transactions, net.

The free cash flow from continuing operations in the fourth quarter amounted to USD 3.0 billion (+1% USD), broadly in line with the prior-year quarter as lower cash flows from operating activities were offset by lower net investments in property, plant and equipment and intangible assets.

Total Group free cash flow amounted to USD 3.0 billion, broadly in line with the prior-year quarter.

Full year
Cash flows from operating activities of continuing operations amounted to USD 11.5 billion, compared to USD 12.1 billion in 2015. The decrease of USD 0.6 billion was driven by lower operating income adjusted for non-cash items, lower hedging results and higher payments out of provisions, partially offset by dividends received from GSK Consumer Healthcare Holdings Ltd., lower cash outflows for taxes paid and net current assets and other operating cash flow items.

Cash flows used in investing activities from continuing operations amounted to USD 2.7 billion in 2016. This amount includes cash outflows of USD 1.9 billion for the purchase of property, plant and equipment, USD 1.4 billion for intangible, financial and other non-current assets, and USD 0.8 billion for acquisitions and divestments of businesses, net (including the Transcend Medical Inc. and Selexys Pharmaceuticals Corporation acquisitions). This was offset by cash inflows of USD 1.3 billion of proceeds from the sale of non-current assets and USD 0.1 billion net proceeds from sales of marketable securities and commodities. In 2015, cash flows used in investing activities from continuing operations amounted to USD 19.7 billion, primarily due to the acquisition of the GSK oncology assets for USD 16.0 billion.

Cash flows used in investing activities from discontinued operations amounted to USD 0.7 billion in 2016 due to portfolio transformation transactions payments, including capital gains taxes. In 2015, the cash flows from investing activities from discontinued operations of USD 8.9 billion were mainly driven by net proceeds from the portfolio transformation divestments.

The cash flows used in financing activities amounted to USD 5.3 billion, compared to USD 9.2 billion in 2015. The 2016 amount includes cash outflows of USD 6.5 billion for the dividend payment and USD 0.9 billion for treasury share transactions, net. The net inflow from current and non-current financial debts of USD 2.1 billion was due to the increase in short-term borrowings of USD 1.8 billion and the issuance of two euro denominated bonds for total proceeds of USD 1.9 billion, partially offset by the repayment at maturity of a euro denominated bond of USD 1.7 billion. The 2015 amount included mainly a cash outflow of USD 6.6 billion for the dividend payment and USD 4.5 billion for treasury share transactions, net, partially offset by a net inflow from financial debts of USD 2.0 billion.

Free cash flow from continuing operations amounted to USD 9.5 billion (+2% USD) compared to USD 9.3 billion in 2015. The increase of USD 0.2 billion was mainly driven by lower net investments in property, plant and equipment.

Total Group free cash flow amounted to USD 9.5 billion in 2016 compared to USD 9.0 billion in 2015. The prior year included a negative free cash flow of approximately USD 0.3 billion from discontinued operations.

Balance sheet

Assets

Total non-current assets of USD 105.2 billion at December 31, 2016 decreased by USD 3.5 billion compared to December 31, 2015. Intangible assets other than goodwill decreased by USD 2.9 billion, mainly due to amortization and impairment charges totaling USD 4.5 billion, and unfavorable currency translation adjustments of USD 0.5 billion, partially offset by the impact of business combinations and additions totaling USD 2.1 billion. Property, plant and equipment decreased by 0.3 billion, mainly due to depreciation of USD 1.5 billion and unfavorable currency translation adjustments of USD 0.5 billion, partially offset by additions of USD 1.8 billion.

Goodwill decreased by USD 0.2 billion to USD 31.0 billion, mainly on account of currency translation adjustments.

Financial and other non-current assets decreased by USD 0.1 billion to USD 27.2 billion. This includes: investments in associated companies, which decreased by USD 1.0 billion to USD 14.3 billion, mainly on account of currency translation adjustments; deferred tax assets, which increased by USD 1.1 billion to USD 10.0 billion, mainly on intangible assets, inventories and pension obligations; and financial assets and other non-current assets, which decreased by USD 0.2 billion to USD 2.9 billion.

Total current assets increased by USD 2.1 billion to USD 24.9 billion at December 31, 2016, mainly due to an increase in cash and cash equivalents, marketable securities, commodities and derivatives of USD 2.3 billion, partially offset by a decrease in other current assets of USD 0.3 billon. Inventories and trade receivables were broadly in line with the prior year.

Liabilities

Total non-current and current financial debt, including derivatives, amounted to USD 23.8 billion at December 31, 2016, compared to USD 21.9 billion at December 31, 2015. Non-current financial debt increased by USD 1.6 billion to USD 17.9 billion at December 31, 2016, mainly due to the issuance of two euro denominated bonds for a total amount of USD 2.0 billion. Current financial debt increased by USD 0.3 billion to USD 5.9 billion at December 31, 2016, mainly due to higher short-term borrowings, partially offset by a repayment at maturity of a euro denominated bond of USD 1.7 billion.

Other non-current liabilities amounted to USD 15.1 billion at December 31, 2016, compared to USD 14.4 billion at December 31, 2015. The increase of USD 0.7 billion was primarily due to an increase in the pension liability of USD 0.5 billion, mainly resulting from a decrease in the actuarial discount rates used to calculate the present value of the benefit obligation and an increase in deferred tax liability of USD 0.3 billion.

Trade payables and other current liabilities decreased by USD 1.8 billion to USD 16.3 billion, compared to USD 18.1 billion at December 31, 2015, due to a decrease in other current liabilities of USD 1.0 billion and a decrease in trade payables of USD 0.8 billion.

The subsidiaries in Venezuela restate non-monetary items in the balance sheet in line with the requirements of IAS 29.

The Group's subsidiaries in Venezuela are experiencing a significant reduction in approvals for remittance of US dollars outside the country at the exchange rate available for imports of specific goods and services of national priority, including medicines and medical supplies. As a result, in November 2016, the Group changed the exchange rate applied to translate the financial statements of its Venezuelan subsidiaries from VEF 11 per USD to the floating rate of DICOM (Systema de Divisa Complementaria), which was VEF 658 per USD as of November 1, 2016. A corresponding USD 0.3 billion revaluation loss on the outstanding intercompany balances was recognized in the fourth quarter of 2016. Due to reserves against the intercompany balances, the net outstanding intercompany payable balance of Venezuela subsidiaries was reduced to an insignificant amount as of December 31, 2016.

The Group has an equivalent of approximately USD 2 million of cash in Venezuela in local currency (VEF), which is subject to loss of purchase power due to high inflation in the country.

Group equity

The Group's equity decreased by USD 2.2 billion to USD 74.9 billion at December 31, 2016, compared to USD 77.1 billion at December 31, 2015. The decrease was mainly on account of unfavorable currency translation differences of USD 2.4 billion and net actuarial losses from defined benefit plans of USD 0.5 billion, partially offset by the Novartis share of other comprehensive income recognized by associated companies of USD 0.7 billion. The USD 6.5 billion dividend payment was offset by the net income of USD 6.7 billion.

Net debt and debt/equity ratio

The Group's liquidity amounted to USD 7.8 billion at December 31, 2016 compared to USD 5.4 billion at December 31, 2015, and net debt decreased to USD 16.0 billion at December 31, 2016 compared to USD 16.5 billion at December 31, 2015. The debt/equity ratio increased to 0.32:1 at December 31, 2016 compared to 0.28:1 at December 31, 2015.

INNOVATION REVIEW

Benefiting from our continued focus on innovation, Novartis has one of the industry's most competitive pipelines with more than 200 projects in clinical development.

Key developments from the fourth quarter of 2016 include:

New approvals and regulatory opinions

- ***Lucentis*** (ranibizumab) received EU approval to treat patients with visual impairment due to rare conditions causing choroidal neovascularization (CNV). *Lucentis* is the first and only treatment approved in this indication in the EU, and the only treatment available for such a wide range of CNV conditions. This approval is the sixth indication for *Lucentis* for the treatment of visually impaired patients. Submissions for the new indication have been filed in 11 other countries, including Switzerland and Australia.

- The EC approved ***Arzerra*** (ofatumumab) in combination with fludarabine and cyclophosphamide for the treatment of adult patients with relapsed chronic lymphocytic leukemia.

- ***Votubia*** (everolimus) dispersible tablets was recommended by CHMP for approval as an adjunctive treatment for patients aged two years and older whose refractory partial-onset seizures, with or without secondary generalization, are associated with tuberous sclerosis complex (TSC).

- The CHMP recommended the approval of ***Ilaris*** (canakinumab) in Europe to treat three rare and distinct Periodic Fever Syndromes. The Japanese Ministry of Health, Labour and Welfare (MHLW) also approved *Ilaris* in Periodic Fever Syndromes for adult and pediatric patients.

- ***AcrySof IQ ReSTOR*** **+3.0D Multifocal Toric IOL** was approved in the US. It is designed to address presbyopia and pre-existing corneal astigmatism at the time of cataract surgery in adult patients who desire good near, intermediate and distance vision with an increased potential for spectacle independence.

- ***AcrySof IQ PanOptix*** **Toric IOL** received EU approval to provide improved near, intermediate, and distance vision for cataract patients with pre-existing corneal astigmatism.

Regulatory submissions and filings

- The FDA granted Priority Review to **LEE011** (ribociclib) in combination with letrozole as first-line treatment for postmenopausal women with HR+/HER2- advanced or metastatic breast cancer, which may lead to faster regulatory review and potential approval in the US. The EMA also accepted for review the marketing authorization application for LEE011 plus letrozole in the same patient population.

- The FDA granted Priority Review to ***Tafinlar*** + ***Mekinist*** (dabrafenib + trametinib) combination therapy for the treatment of BRAF mutant non-small cell lung cancer (NSCLC), as detected by an FDA-approved test, with disease progression on or after platinum-containing chemotherapy. The combination was also filed with Japanese health authorities for the treatment in patients with BRAF V600E mutation-positive NSCLC.

- The FDA granted Priority Review to **PKC412** (midostaurin) for the treatment of newly diagnosed FLT3 mutation-positive acute myeloid leukemia and advanced systemic mastocytosis.

- Applications were submitted in the US, EU, Japan and other markets for expanding the indication for ***Zykadia*** (ceritinib) to a first-line treatment for patients with ALK positive NSCLC based on results of the ASCEND-4 trial.

- An application was submitted to the Japanese health authorities for ***Revolade*** (eltrombopag) for aplastic anemia (moderate and severe).

- BACE inhibitor **CNP520** received FDA Fast Track designation. CNP520 is an oral drug designed to prevent the production of different forms of amyloid and has the potential to prevent, slow or delay the symptoms associated with Alzheimer's Disease. CNP520 is being developed in collaboration with Amgen.

- Sandoz has submitted a Marketing Authorization Application in Japan for its biosimilar **Rituximab BS Injection 100/500 mg [KHK]**.

Results from ongoing trials and other highlights

- Data presented at the American College of Rheumatology showed that ***Cosentyx*** (secukunimab) delivered sustained improvements in the signs and symptoms of psoriatic arthritis (PsA) over three years – including patient-reported pain.

- Results from the Phase III STRIVE study investigating the efficacy and safety of **AMG 334** (erenumab) in episodic migraine prevention showed that AMG 334 met the study's primary endpoint, demonstrating a statistically significant reduction from baseline in mean monthly migraine days at six months versus placebo. In this study, the safety profile of AMG 334 was comparable to placebo. AMG 334 is being co-developed by Novartis and Amgen. Novartis has commercial rights to AMG 334 outside of the US, Canada and Japan.

- A post-hoc analysis of PARADIGM-HF data showed that ***Entresto*** (sacubitril/valsartan) reduced the risk of first and repeat heart failure hospitalizations as well as cardiovascular deaths by 20-24% compared to enalapril. The findings were presented at the American Heart Association (AHA).

- PARAGON-HF, a Phase III trial of ***Entresto*** in patients with chronic heart failure with preserved ejection fraction, has completed enrollment. Novartis has also commenced enrollment in PARADISE-MI, a Phase III trial of *Entresto* in post-myocardial infarction patients.

- Results from additional analyses from the Phase III MONALEESA-2 study showed that **LEE011** plus letrozole significantly prolonged progression-free survival across various pre-planned patient subgroups with HR+/HER2- advanced or metastatic breast cancer, including post-menopausal women diagnosed de novo, those with visceral metastases (liver and/or lung involvement), and those with bone-only disease. These findings demonstrate the potential impact of LEE011 plus letrozole in the first-line setting, showing that treatment benefit was evident across relevant patient subgroups regardless of their disease burden or tumor location, including those patients with more aggressive disease. The data were presented at the San Antonio Breast Cancer Symposium (SABCS).

- Novartis announced initial topline results from two pivotal Phase III clinical studies evaluating the safety and efficacy of **pegpleranib** in combination with *Lucentis* (ranibizumab) for the treatment of neovascular age-related macular degeneration (nAMD). Studies OPH1002 and OPH1003, sponsored by Ophthotech Corporation, showed that the proven efficacy of *Lucentis* monotherapy was not improved by the addition of pegpleranib, measured as best corrected visual acuity (BCVA) in terms of additional letter gains over ranibizumab monotherapy. Patients treated with ranibizumab alone showed a 9.82 letter BCVA improvement in the OPH1002 study and a 10.36 letter BCVA improvement in the OPH1003 study.

- Results from the pivotal global Phase II ELIANA trial of **CTL019** in relapsed/refractory (r/r) pediatric and young adult patients with B-cell acute lymphoblastic leukemia found that 82% (41 of 50) of infused patients achieved complete remission or complete remission with incomplete blood count recovery at three months post CTL019 infusion. For all patients with complete remission, no minimal residual disease was detected. In addition, the estimated relapse-free rate among responders was 60% (95% CI: 36, 78) six months after infusion with CTL019. The data were presented at the American Society of Hematology (ASH) Annual Meeting.

- Results from ASCEND-4, an open-label, randomized, active-controlled, multi-center Phase III study, found that patients with anaplastic lymphoma kinase-positive (ALK+) advanced non-small cell lung cancer (NSCLC) treated with first-line ***Zykadia*** had a median progression-free survival of 16.6 months (95% CI: 12.6, 27.2), compared to 8.1 months (95% CI: 5.8, 11.1) in patients treated with standard first-line chemotherapy with maintenance. The study findings were presented in the Presidential Symposium at the World Conference on Lung Cancer (WCLC).

- Novartis exercised its right to acquire Selexys Pharmaceuticals Corporation following receipt of results of the SUSTAIN study, a Phase II trial evaluating the use of SelG1, an anti-P-selectin antibody, in the reduction of vaso-occlusive pain crises in patients with sickle cell disease (SCD). Results from the SUSTAIN study presented at ASH and published simultaneously in *The New England Journal of Medicine* showed that **SEG101** (crizanlizumab) reduced the median annual rate of sickle cell-related pain crises compared to placebo in patients with or without hydroxyurea therapy.

- The Global Initiative for Chronic Lung Disease (GOLD) released updated 2017 guidelines for the management of COPD. In the new guidelines, first-line treatment with a drug from the LABA/LAMA class, such as ***Ultibro Breezhaler*** (indacaterol/glycopyrronium), is recommended in the majority of symptomatic COPD patients, regardless of exacerbation risk. Further, a LABA/LAMA drug is recommended as a preferred option in all patients for whom a maintenance therapy is recommended, while ICS-containing combination therapies are recommended in only a minority of patients, if beneficial and following LABA/LAMA treatment.

- The results of the pragmatic CRYSTAL study of ***Ultibro Breezhaler*** in COPD were showcased for the first time at the British Thoracic Society Meeting. *Ultibro Breezhaler* improved lung function and breathlessness after direct switch from long-acting bronchodilators or steroid-containing combination therapies. These results further support the 2017 GOLD recommendations that dual bronchodilation should be the foundation treatment for the majority of symptomatic COPD patients.

- New data from two head-to-head studies showed ***Utibron Neohaler*** provided clinically meaningful and comparable bronchodilation to Anoro® Ellipta® in US patients with COPD. However, the primary endpoint in terms of 24-hour lung function improvement (FEV_1 $AUC_{0\text{-}24h}$) was not met statistically. A full evaluation of this new data is ongoing and will be communicated in due course. The primary objective of the two head-to-head studies was to demonstrate that *Utibron Neohaler* was non-inferior to Anoro® Ellipta® in improving lung function over a 24-hour period (FEV_1 $AUC_{0\text{-}24h}$) after 12 weeks of treatment. In December, Novartis announced that it out-licensed US commercial rights for three chronic obstructive pulmonary disease drugs including *Utibron Neohaler* to Sunovion Pharmaceuticals.

- The pivotal Phase III CANTOS study with **ACZ885** (canakinumab) has achieved the required cardiovascular events (1400) and study close-out procedures have commenced. This large outcomes trial (>10,000 patients randomized with median treatment duration of >4 years) is investigating whether ACZ885 can reduce the risk of recurrent cardiovascular events (cardiovascular death, non-fatal myocardial infarction, non-fatal stroke) in patients with a history of myocardial infarction and elevated inflammatory burden versus placebo when administered quarterly in addition to standard of care. The study is on track for a readout of results in mid-2017.

- The Phase III PROTECT trial of ***Votrient*** (pazopanib) in adjuvant renal cell carcinoma did not meet its primary endpoint and we will not file for the indication. Data from the trial will be submitted to an upcoming medical meeting.

- Novartis completed in January 2017 the acquisition of **Ziarco Group Limited**, adding a once-daily oral H_4 receptor antagonist in development for atopic dermatitis (AD), commonly known as eczema, to complement the growing Novartis dermatology portfolio and pipeline.

- Novartis announced the signing of an exclusive option, collaboration and license agreement with **Conatus Pharmaceuticals Inc**. This agreement will enable Novartis and Conatus to jointly develop emricasan, an investigational, first-in-class, oral, pan-caspase inhibitor for the treatment of non-alcoholic steatohepatitis (NASH) with advanced fibrosis and cirrhosis. This collaboration has the potential to expand treatment options for people in various stages of fatty liver disease, where no approved medicines currently exist.

- Novartis completed in January 2017 the acquisition of **Encore Vision, Inc**, adding a first-in-class disease modifying topical treatment for presbyopia to the Novartis ophthalmology pipeline.

- In January, Novartis entered into a collaboration and option agreement with **Ionis Pharmaceuticals, Inc.** (Ionis) and its affiliate **Akcea Therapeutics, Inc.** (Akcea), to license two novel treatments with the potential to significantly reduce cardiovascular risk in patients suffering from high levels of lipoproteins known as Lp(a) and ApoCIII. The two investigational antisense therapies developed by Ionis – called AKCEA-APO(a)-L_{Rx} and AKCEA-APOCIII-L_{Rx} – have the potential to lower both lipoproteins up to 90% and significantly reduce cardiovascular risk in high-risk patient populations. In addition, Novartis entered into a stock purchase agreement with Ionis and Akcea. This transaction is subject to customary closing conditions, including regulatory approval.

- Data for Sandoz' **biosimilar rituximab** from the ASSIST-FL trial, a confirmatory safety and efficacy study in 629 patients, was presented at ASH. The study met its primary endpoint of overall response rate (ORR), demonstrating equivalent efficacy in addition to safety, pharmacokinetics and pharmacodynamics to the reference product, MabThera®. Biosimilar rituximab was submitted to the EMA for review in May 2016.

- 52 week data from the EGALITY trial on Sandoz' **biosimilar etanercept** was published in the *British Journal of Dermatology*. The confirmatory clinical safety and efficacy study in more than 500 adult patients showed that there are no clinically meaningful differences between biosimilar etanercept and the reference product Enbrel® in safety and efficacy over 52 weeks. Sandoz biosimilar etanercept was approved by the FDA in August 2016 and is currently under review by the EMA.

Selected approvals: US, EU and Japan

Product	Active ingredient/ Descriptor	Indication	Approval date
Lucentis	Ranibizumab	Choroidal neovascularization in rare diseases	EU - Dec. 2016
Arzerra	Ofatumumab	Chronic lymphocytic leukemia (relapsed)	EU - Dec. 2016
Ilaris	Canakinumab	Periodic Fever Syndromes	JP - Dec. 2016
AcrySof IQ ReSTOR +3.0D Multifocal Toric IOL	Multifocal IOL for astigmatism	Cataract	US - Dec. 2016
AcrySof IQ PanOptix Toric IOL	Trifocal IOL for astigmatism	Cataract	EU - Nov. 2016

Selected projects awaiting regulatory decisions

		Completed submissions			
Product	**Indication**	**US**	**EU**	**Japan**	**News update**
Afinitor/Votubia	TSC seizures		Q2 2016		· Positive CHMP opinion
Ilaris	Periodic fever syndromes	Approved	Q2 2016	Approved	· Positive CHMP opinion
LEE011 + letrozole	HR+/HER2- postmenopausal advanced breast cancer (aBC) 1st line	Q3 2016	Q3 2016		· FDA Priority Review

PKC412	Acute myeloid leukemia / advanced systemic mastocytosis	Q3 2016	Q3 2016		- FDA Priority Review
Revolade	Aplastic anemia (moderate and severe)			Q4 2016	
Signifor LAR	Cushing's disease	Q4 2016	Q4 2016		
Tafinlar + Mekinist	BRAF V600+ non-small cell lung cancer (NSCLC)	Q3 2016	Q3 2016	Q4 2016	- FDA Priority Review
Tasigna	CML treatment-free remission		Q2 2016		
Zykadia	ALK+ advanced NSCLC (1st line, treatment naïve)	Q4 2016	Q4 2016	Q4 2016	- Applications submitted in US, EU, Japan and other markets based on ASCEND-4 data

Selected Innovative Medicines pipeline projects

Project/ Compound	Potential indication/ Disease area	First planned submissions	Current Phase	News update
ABL001	Chronic myeloid leukemia 3rd line	2020	I	- Start of pivotal trials planned for 2017
ACZ885 (canakinumab)	Secondary prevention of cardiovascular events	2017	III	- Achieved required cardiovascular events, commenced study close-out procedures
AMG 334	Migraine	2017	III	- In partnership with Amgen - Positive results from STRIVE study in episodic migraine announced in Nov. 2016
Arzerra	Non-Hodgkin's lymphoma (refractory)	2018	III	
BAF312	Secondary progressive multiple sclerosis	2019	III	- Positive first results announced in Aug. 2016 - Ongoing interactions with health authorities
BYL719 + fulvestrant	HR+/HER2- postmenopausal aBC 2nd line	2019	III	
BYM338	Hip fracture	≥2021	II	
	Sarcopenia	≥2021	II	
CAD106	Alzheimer's disease	≥2021	II / III	
CJM112	Immune disorders	≥2021	II	
CNP520	Alzheimer's disease	≥2021	I / II	- In partnership with Amgen - Phase II FPFV achieved in Dec. 2016 - FDA Fast Track designation
Cosentyx	Non-radiographic axial spondyloarthritis	2018	III	
	Psoriatic arthritis head-to-head vs. adalimumab	2020	III	
	Ankylosing spondylitis head-to-head vs. adalimumab	≥2021	III	
CTL019	Pediatric acute lymphoblastic leukemia	2017	II	- Data from pivotal global ELIANA trial presented at ASH
	Diffuse large B-cell lymphoma	2017	II	
EMA401	Neuropathic pain	≥2021	II	
Entresto	Chronic heart failure with preserved ejection fraction	2019	III	- PARAGON-HF trial enrollment completed
	Post-acute myocardial infarction	2020	III	- FPFV achieved in Dec. 2016

FTY720 (fingolimod)	Pediatric multiple sclerosis	2017	III	
INC280	NSCLC	2018	II	
	NSCLC (EGFRm)	≥2021	II	
Jakavi	Graft-versus-host disease (GvHD)	2019	III	- *Jakavi* license agreement amended in Q2 2016, granting Novartis ex-US rights for GvHD
	Early myelofibrosis	2020	III	- Trial ongoing
KAE609	Malaria	≥2021	II	
KAF156	Malaria	≥2021	II	
LAM320	Multi-drug resistant tuberculosis	2018	III	
LCI699	Cushing's disease	2018	III	- Trial ongoing
LEE011 + tamoxifen + goserelin or NSAI + goserelin	HR+/HER2- premenopausal aBC 1st line	2018	III	- Fully enrolled
LEE011 + fulvestrant	HR+/HER2- postmenopausal aBC 1st/2nd line	2018	III	- Fully enrolled
LEE011	HR+/HER2- BC (adjuvant)	≥2021	III	
LIK066	Weight loss	≥2021	II	
LJN452	Non-alcoholic steatohepatitis (NASH)	≥2021	II	- FPFV achieved in Aug 2016 - FDA Fast Track designation
Lucentis	Retinopathy of prematurity	2018	III	- Phase III PIP study enrolling
OMB157 (ofatumumab)	Relapsing multiple sclerosis	2019	III	- Phase III studies started in Aug. 2016
PIM447	Hematologic tumors	≥2021	I	
PKC412	Acute myeloid leukemia (FLT3 wild type)	≥2021	III	
Promacta / Revolade	Severe aplastic anemia 1st line	2017	III	
QAW039	Asthma	2019	III	
	Atopic dermatitis	≥2021	II	
QBW251	Cystic fibrosis	≥2021	II	
QGE031	Chronic spontaneous urticaria / chronic idiopathic urticaria	2020	II	
QMF149	Asthma	2019	III	
QVM149	Asthma	2019	III	
RLX030 (serelaxin)	Acute heart failure	2017	III	- RELAX-AHF-2 completed recruitment in Q3 2016 (6,610 patients)
RTH258	nAMD	2018	III	- Recruitment completed
	Diabetic macular edema	2020	III	
SEG101	Sickle cell disease	2020	III	- Selexys acquisition - SUSTAIN study results presented at ASH and published in NEJM
Tafinlar + *Mekinist*	BRAF V600+ melanoma (adjuvant)	2018	III	- Trial ongoing
	BRAF V600+ colorectal cancer	2020	I / II	
UNR844	Presbyopia	≥2021	II	- Encore Vision acquisition closed in Jan. 2017
VAY736	Primary Sjoegren's syndrome	≥2021	II	- FDA Fast Track designation
ZPL389	Atopic dermatitis	≥2021	II	- Ziarco acquisition closed in Jan. 2017
Zykadia	ALK+ NSCLC (brain metastases)	2019	II	- Trial ongoing

Selected Sandoz pipeline projects (biosimilars)

Project/ Compound	Potential indication/ Disease area	Submission status	Current Phase	News update
GP2017 (adalimumab)	Arthritides (rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis), plaque psoriasis and others (same as originator)		III	- Recruitment in Phase III psoriasis study completed in Feb. 2015
GP2015 (etanercept)	Arthritides (rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis), plaque psoriasis and others (same as originator)	US EU	Approved Submitted	- *Erelzi* (etanercept-szzs) approved by FDA in Q3 2016 for all five indications of reference product - File accepted by EMA in Q4 2015 - 52 week data from EGALITY study presented in *British Journal of Dermatology*
GP2013 (rituximab)	Follicular lymphoma, diffuse large B cell lymphoma, chronic lymphocytic leukemia, rheumatoid arthritis, granulomatosis with polyangiitis, and microscopic polyangiitis (same as originator)	US EU	III Submitted	- File accepted by EMA in Q2 2016 - Marketing Authorization Application submitted in Japan - ASSIST-FL results presented at ASH
HX575 (epoetin alfa)	Chronic kidney disease, chemotherapy-induced anemia and others (same as originator)	US	III	- Trial completed
LA-EP2006 (pegfilgrastim)	Chemotherapy-induced neutropenia and others (same as originator)		III	- File accepted by FDA in Q4 2015 and EMA in Q1 2016 - Resubmission planned for 2018 to address FDA complete response letter - Withdrawal of EU filing in January 2017 with planned re-filing in 2017
GP1111 (infliximab)	Autoimmune diseases including rheumatoid arthritis and psoriasis (same as originator)	EU	III	- EEA rights acquired from Pfizer in Q1 2016 - Top-line results from confirmatory Phase III study, announced in Sep. 2016, demonstrated equivalent efficacy to reference product
GP2018 (infliximab)	Autoimmune diseases including rheumatoid arthritis and psoriasis (same as originator)	US	I	

Selected Alcon pipeline projects

Project/ Compound	Potential indication/ Disease area	Planned submissions	Current Phase	News update
SURGICAL				
AcrySof IQ PanOptix IOL	Trifocal IOL	US 2019	Advanced	- Received CE Mark in Europe in Q2 2015
AcrySof IQ PanOptix Toric IOL	Trifocal IOL for astigmatism	US 2019	Advanced	- Received CE Mark in Europe in Q4 2016
AcrySof IQ ReSTOR +2.5D Toric IOL	Multifocal IOL for astigmatism	US 2016	Submitted	- Received CE Mark in Europe in Q2 2012
A02238	Mid-tier phacoemulsification device	US 2018 EU 2018	Advanced Advanced	
Clareon Monofocal IOL	Next-generation IOL	US 2019 EU 2017 JP 2017	Advanced Advanced	
CyPass Micro-Stent	Minimally invasive surgical glaucoma device for implant during cataract surgery	EU 2017 JP 2017	Advanced	- Received US approval in Q3 2016
VISION CARE				
AirOptix Plus HydraGlyde	Monthly replacement line extension	JP 2017	Submitted	- Received CE Mark in Europe in Q4 2015, US approval in Q3 2016
A00717	Daily disposable line extension	US 2018 EU 2018	Advanced Advanced	
A01660	New daily disposable lens	US 2018 EU 2018	Advanced Advanced	
Dailies Total1 Multifocal	*Dailies Total1* line extension for presbyopia correction	JP 2016	Submitted	- Received CE mark in Europe in Q2 2016 - Achieved US clearance in 2012 for *Dailies Total1* inclusive of multifocal design

CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statements

Fourth quarter (unaudited)

(USD millions unless indicated otherwise)	**Q4 2016**	Q4 2015	Change
Net sales from continuing operations	**12 322**	**12 520**	**-198**
Other revenues	284	284	0
Cost of goods sold	-4 489	-4 549	60
Gross profit from continuing operations	**8 117**	**8 255**	**-138**
Marketing & Sales	-3 246	-3 175	-71
Research & Development	-2 584	-2 472	-112
General & Administration	-592	-710	118
Other income	381	596	-215
Other expense	-621	-817	196
Operating income from continuing operations	**1 455**	**1 677**	**-222**
Income from associated companies	156	10	146
Interest expense	-168	-158	-10
Other financial income and expense	-365	-398	33
Income before taxes from continuing operations	**1 078**	**1 131**	**-53**
Taxes	-142	-77	-65
Net income from continuing operations	**936**	**1 054**	**-118**
Net income from discontinued operations		2	-2
Net income	**936**	**1 056**	**-120**
Attributable to:			
Shareholders of Novartis AG	*957*	*1 054*	*-97*
Non-controlling interests	*-21*	*2*	*-23*
Weighted average number of shares outstanding – Basic (million)	**2 375**	**2 385**	**-10**
Basic earnings per share from continuing operations (USD) [1]	*0.40*	*0.44*	*-0.04*
Basic earnings per share from discontinued operations (USD) [1]		*0.00*	*0.00*
Total basic earnings per share (USD) [1]	**0.40**	**0.44**	**-0.04**
Weighted average number of shares outstanding – Diluted (million)	2 395	2 418	-23
Diluted earnings per share from continuing operations (USD) [1]	*0.40*	*0.44*	*-0.04*
Diluted earnings per share from discontinued operations (USD) [1]		*0.00*	*0.00*
Total diluted earnings per share (USD) [1]	0.40	0.44	-0.04

[1] Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

Consolidated income statements

Full year (audited)

(USD millions unless indicated otherwise)	**FY 2016**	FY 2015	Change
Net sales to third parties from continuing operations	**48 518**	**49 414**	**-896**
Sales to discontinued segments		26	-26
Net sales from continuing operations	**48 518**	**49 440**	**-922**
Other revenues	918	947	-29
Cost of goods sold	-17 520	-17 404	-116
Gross profit from continuing operations	**31 916**	**32 983**	**-1 067**
Marketing & Sales	-11 998	-11 772	-226
Research & Development	-9 039	-8 935	-104
General & Administration	-2 194	-2 475	281
Other income	1 927	2 049	-122
Other expense	-2 344	-2 873	529
Operating income from continuing operations	**8 268**	**8 977**	**-709**
Income from associated companies	703	266	437
Interest expense	-707	-655	-52
Other financial income and expense	-447	-454	7
Income before taxes from continuing operations	**7 817**	**8 134**	**-317**
Taxes	-1 119	-1 106	-13
Net income from continuing operations	**6 698**	**7 028**	**-330**
Net income from discontinued operations		10 766	-10 766
Net income	**6 698**	**17 794**	**-11 096**
Attributable to:			
Shareholders of Novartis AG	*6 712*	*17 783*	*-11 071*
Non-controlling interests	*-14*	*11*	*-25*
Weighted average number of shares outstanding – Basic (million)	**2 378**	**2 403**	**-25**
Basic earnings per share from continuing operations (USD) [1]	*2.82*	*2.92*	*-0.10*
Basic earnings per share from discontinued operations (USD) [1]		*4.48*	*-4.48*
Total basic earnings per share (USD) [1]	**2.82**	**7.40**	**-4.58**
Weighted average number of shares outstanding – Diluted (million)	2 400	2 438	-38
Diluted earnings per share from continuing operations (USD) [1]	*2.80*	*2.88*	*-0.08*
Diluted earnings per share from discontinued operations (USD) [1]		*4.41*	*-4.41*
Total diluted earnings per share (USD) [1]	2.80	7.29	-4.49

[1] Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

Consolidated statements of comprehensive income

Fourth quarter (unaudited)

(USD millions)	**Q4 2016**	Q4 2015	Change
Net income	**936**	**1 056**	**-120**
Other comprehensive income to be eventually recycled into the consolidated income statement:			
Fair value adjustments on financial instruments, net of taxes	-64	46	-110
Novartis share of other comprehensive income recognized by associated companies, net of taxes	766	0	766
Translation effects	-2 589	-730	-1 859
Total of items to eventually recycle	*-1 887*	*-684*	*-1 203*
Other comprehensive income never to be recycled into the consolidated income statement:			
Net actuarial gains from defined benefit plans, net of taxes	736	305	431
Comprehensive income	**-215**	**677**	**-892**
Attributable to:			
Shareholders of Novartis AG	*-192*	*675*	*-867*
Continuing operations	*-192*	*665*	*-857*
Discontinued operations		*10*	*-10*
Non-controlling interests	*-23*	*2*	*-25*

Full year (audited)

(USD millions)	**FY 2016**	FY 2015	Change
Net income	**6 698**	**17 794**	**-11 096**
Other comprehensive income to be eventually recycled into the consolidated income statement:			
Fair value adjustments on financial instruments, net of taxes	-98	48	-146
Novartis share of other comprehensive income recognized by associated companies, net of taxes	671	-48	719
Translation effects	-2 391	-1 662	-729
Total of items to eventually recycle	*-1 818*	*-1 662*	*-156*
Other comprehensive income never to be recycled into the consolidated income statement:			
Net actuarial losses from defined benefit plans, net of taxes	-515	-147	-368
Comprehensive income	**4 365**	**15 985**	**-11 620**
Attributable to:			
Shareholders of Novartis AG	*4 382*	*15 977*	*-11 595*
Continuing operations	*4 382*	*5 238*	*-856*
Discontinued operations		*10 739*	*-10 739*
Non-controlling interests	*-17*	*8*	*-25*

Condensed consolidated balance sheets (audited)

(USD millions)	**Dec 31, 2016**	Dec 31, 2015	Change
Assets			
Non-current assets			
Property, plant & equipment	15 641	15 982	-341
Goodwill	30 980	31 174	-194
Intangible assets other than goodwill	31 340	34 217	-2 877
Financial and other non-current assets	27 232	27 338	-106
Total non-current assets	**105 193**	**108 711**	**-3 518**
Current assets			
Inventories	6 255	6 226	29
Trade receivables	8 202	8 180	22
Other current assets	2 697	2 992	-295
Cash and cash equivalents, marketable securities, commodities and derivatives	7 777	5 447	2 330
Total current assets	**24 931**	**22 845**	**2 086**
Total assets	**130 124**	**131 556**	**-1 432**
Equity and liabilities			
Equity attributable to Novartis AG shareholders	74 832	77 046	-2 214
Non-controlling interests	59	76	-17
Total equity	**74 891**	**77 122**	**-2 231**
Non-current liabilities			
Financial debts	17 897	16 327	1 570
Other non-current liabilities	15 127	14 399	728
Total non-current liabilities	**33 024**	**30 726**	**2 298**
Current liabilities			
Trade payables	4 873	5 668	-795
Financial debts and derivatives	5 905	5 604	301
Other current liabilities	11 431	12 436	-1 005
Total current liabilities	**22 209**	**23 708**	**-1 499**
Total liabilities	**55 233**	**54 434**	**799**
Total equity and liabilities	**130 124**	**131 556**	**-1 432**

Condensed consolidated changes in equity

Fourth quarter (unaudited)

(USD millions)	**Q4 2016**	Q4 2015	Change
Consolidated equity at October 1	**75 066**	**76 785**	**-1 719**
Comprehensive income	-215	677	-892
Purchase of treasury shares	-122	-1 967	1 845
Decrease of treasury share repurchase obligation under a share buyback trading plan		1 533	-1 533
Exercise of options and employee transactions	0	10	-10
Equity-based compensation	162	83	79
Change in non-controlling interests	0	1	-1
Consolidated equity at December 31	**74 891**	**77 122**	**-2 231**

Full year (audited)

(USD millions)	**FY 2016**	FY 2015	Change
Consolidated equity at January 1	**77 122**	**70 844**	**6 278**
Comprehensive income	4 365	15 985	-11 620
Purchase of treasury shares	-992	-6 119	5 127
Decrease of treasury share repurchase obligation under a share buyback trading plan		658	-658
Exercise of options and employee transactions	214	1 592	-1 378
Dividends to shareholders of Novartis AG	-6 475	-6 643	168
Equity-based compensation	664	815	-151
Impact of change in ownership of consolidated entities	-7		-7
Change in non-controlling interests	0	-10	10
Consolidated equity at December 31	**74 891**	**77 122**	**-2 231**

Condensed consolidated cash flow statements

Fourth quarter (unaudited)

(USD millions)	**Q4 2016**	Q4 2015	Change
Net income from continuing operations	**936**	**1 054**	**-118**
Reversal of non-cash items			
Taxes	142	77	65
Depreciation, amortization and impairments	1 832	1 429	403
Change in provisions and other non-current liabilities	219	518	-299
Income from associated companies	-156	-10	-146
Net financial expense	533	556	-23
Other	-41	-70	29
Net income adjusted for non-cash items	**3 465**	**3 554**	**-89**
Interest and other financial receipts	237	73	164
Interest and other financial payments	-201	-150	-51
Taxes paid [1]	-791	-528	-263
Cash flows before working capital changes from continuing operations	**2 710**	**2 949**	**-239**
Payments out of provisions and other net cash movements in non-current liabilities	-184	-291	107
Change in net current assets and other operating cash flow items	1 065	1 439	-374
Cash flows from operating activities from continuing operations	**3 591**	**4 097**	**-506**
Cash flows from operating activities from discontinued operations [1]		60	-60
Total cash flows from operating activities	**3 591**	**4 157**	**-566**
Purchase of property, plant & equipment	-586	-753	167
Purchase of intangible, financial and other non-current assets	-326	-561	235
Proceeds from sales of property, plant & equipment, intangible and financial assets	297	159	138
Acquisitions and divestments of businesses, net	-235	-135	-100
Change in marketable securities and commodities	3	-187	190
Cash flows used in investing activities from continuing operations	**-847**	**-1 477**	**630**
Cash flows used in investing activities from discontinued operations [1]	-226	-213	-13
Total cash flows used in investing activities	**-1 073**	**-1 690**	**617**
Change in current and non-current financial debts	-2 108	-731	-1 377
Treasury share transactions, net	-205	-2 073	1 868
Other financing cash flows	10	29	-19
Cash flows used in financing activities	**-2 303**	**-2 775**	**472**
Effect of exchange rate changes on cash and cash equivalents	-382	-346	-36
Change in cash and cash equivalents	**-167**	**-654**	**487**
Cash and cash equivalents at October 1	7 174	5 328	1 846
Cash and cash equivalents at December 31	**7 007**	**4 674**	**2 333**

[1] In Q4 2016, the total net tax payment amounted to USD 797 million of which USD 6 million was included in the cash flows used in investing activities from discontinued operations. In Q4 2015, the total net tax payment amounted to USD 651 million of which a refund of USD 70 million was included in the cash flows from operating activities from discontinued operations and a USD 193 million payment in cash flows used in investing activities from discontinued operations.

Condensed consolidated cash flow statements

Full year (audited)

(USD millions)	**FY 2016**	FY 2015	Change
Net income from continuing operations	**6 698**	**7 028**	**-330**
Reversal of non-cash items			
Taxes	1 119	1 106	13
Depreciation, amortization and impairments	6 175	5 575	600
Change in provisions and other non-current liabilities	956	1 642	-686
Income from associated companies	-703	-266	-437
Net financial expense	1 154	1 109	45
Other	-264	-96	-168
Net income adjusted for non-cash items	**15 135**	**16 098**	**-963**
Interest and other financial receipts	942	1 180	-238
Interest and other financial payments	-878	-669	-209
Taxes paid [1]	-2 111	-2 454	343
Cash flows before working capital changes from continuing operations	**13 088**	**14 155**	**-1 067**
Payments out of provisions and other net cash movements in non-current liabilities	-1 536	-1 207	-329
Change in net current assets and other operating cash flow items	-77	-863	786
Cash flows from operating activities from continuing operations	**11 475**	**12 085**	**-610**
Cash flows used in operating activities from discontinued operations [1]		-188	188
Total cash flows from operating activities	**11 475**	**11 897**	**-422**
Purchase of property, plant & equipment	-1 862	-2 367	505
Purchase of intangible, financial and other non-current assets	-1 413	-1 484	71
Proceeds from sales of property, plant & equipment, intangible and financial assets	1 255	1 025	230
Acquisitions and divestments of businesses, net	-765	-16 507	15 742
Change in marketable securities and commodities	92	-333	425
Cash flows used in investing activities from continuing operations	**-2 693**	**-19 666**	**16 973**
Cash flows used in/from investing activities from discontinued operations [1]	-748	8 882	-9 630
Total cash flows used in investing activities	**-3 441**	**-10 784**	**7 343**
Dividends related to shareholders of Novartis AG	-6 475	-6 643	168
Change in current and non-current financial debts	2 055	1 961	94
Treasury share transactions, net	-895	-4 490	3 595
Impact of change in ownership of consolidated entities	-6		-6
Other financing cash flows	7	-4	11
Cash flows used in financing activities	**-5 314**	**-9 176**	**3 862**
Effect of exchange rate changes on cash and cash equivalents	-387	-286	-101
Change in cash and cash equivalents	**2 333**	**-8 349**	**10 682**
Cash and cash equivalents at January 1	4 674	13 023	-8 349
Cash and cash equivalents at December 31	**7 007**	**4 674**	**2 333**

[1] In 2016, the total net tax payment amounted to USD 2 299 million, of which USD 188 million was included in the cash flows used in investing activities from discontinued operations. In 2015, the total net tax payment amounted to USD 3 325 million, of which a refund of USD 94 million was included in the cash flows used in operating activities from discontinued operations, and a USD 965 million payment in the cash flows from investing activities of discontinued operations.

Notes to the Condensed Interim Consolidated Financial Statements for the three-and twelve-month periods ended December 31, 2016 (audited)

1. Basis of preparation

These Condensed Interim Consolidated Financial Statements for the three months period and year ended December 31, 2016, were prepared in accordance with International Accounting Standard 34 *Interim Financial Reporting* and accounting policies set out in the 2016 Annual Report published on January 25, 2017.

2. Selected critical accounting policies

The Group's principal accounting policies are set out in Note 1 to the Consolidated Financial Statements in the Annual Report 2016 and conform with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board. The presentation of financial statements requires management to make subjective and complex judgments that affect the reported amounts. Because of the inherent uncertainties, actual outcomes and results may differ from management's assumptions and estimates.

In particular, during the first half of 2015, the significant transactions discussed in Note 3, were completed. Several of these transactions contained contingent consideration due to Novartis. Accounting for such contingent consideration requires management to make assumptions on the probability and amount of potential payments. If actual amounts are different from the estimated amounts recorded for contingent consideration there could be a significant impact, either positive or negative, on the Group's results of operations or cash flow.

The significant transactions discussed in Note 3 also included the formation of a new entity during the first quarter of 2015 via contribution of businesses from both Novartis and GlaxoSmithKline plc (GSK). Novartis has a 36.5% interest in this newly created entity and accounts for its stake using the equity method of accounting. Novartis has valued the contribution of 63.5% of its former OTC Division to the entity in exchange for 36.5% of the GlaxoSmithKline Consumer Healthcare Holdings Ltd. at fair value. The resulting gain for Novartis is based on these exchanged values. Novartis has elected to apply an option under IFRS for entities formed by contributions. Under this option, the retained 36.5% interest of Novartis in its former OTC Division continues to be measured at its net book value at the time of the formation of the entity.

Furthermore, as discussed in the 2016 Annual Report, goodwill, Alcon brand name and acquired In-Process Research & Development projects are reviewed for impairment at least annually and these, as well as all other investments in intangible assets, are reviewed for impairment whenever an event or decision occurs that raises concern about their balance sheet carrying value. The amount of goodwill and other intangible assets on the Group's consolidated balance sheet has risen significantly in recent years, primarily from acquisitions. Impairment testing under IFRS may lead to potentially significant impairment charges in the future that could have a materially adverse impact on the Group's results of operations or cash flow.

3. Significant transactions

Significant transactions in 2016

Alcon – Acquisition of Transcend Medical, Inc.
On February 17, 2016, Alcon entered into an agreement to acquire Transcend Medical, Inc. (Transcend), a privately-held, US-based company focused on developing minimally-invasive surgical devices to treat glaucoma. The transaction closed on March 23, 2016, and the fair value of the total purchase consideration was USD 332 million. The amount consisted of an initial cash payment of USD 240 million and the net present value of the contingent consideration of USD 92 million due to the Transcend shareholders, which they are eligible to receive upon achievement of specified development and commercialization milestones. The purchase price allocation resulted in net identifiable assets of USD 294 million and goodwill of USD 38 million. Results of operations since the date of acquisition were not material.

Innovative Medicines – Acquisition of Selexys Pharmaceuticals Corporation
On November 18, 2016, Novartis acquired Selexys Pharmaceuticals Corporation (Selexys), a privately held, US-based company specializing in development of therapeutics in certain hematologic and inflammatory disorders following receipt of results of the SUSTAIN study. The initial interest of 19% is adjusted to its fair value of USD 64 million through the consolidated income statement at acquisition date. This re-measurement resulted in a gain of USD 53 million.

The fair value of the total purchase consideration for acquiring the 81% stake Novartis did not already own amounted to USD 268 million. The amount consisted of an initial cash payment of USD 194 million and the net present value of the contingent consideration of USD 74 million due to the Selexys shareholders, which they are eligible to receive upon achievement of specified development and commercialization milestones. The purchase price allocation resulted in net identifiable assets of USD 332 million. No goodwill was recognized. Results of operations since the date of acquisition were not material.

Significant transactions entered into in 2016 and closed in 2017

Innovative Medicines – Acquisition of Ziarco Group Limited
On December 16, 2016, Novartis entered into an agreement to acquire Ziarco Group Limited, a privately held company focused on the development of novel treatments in dermatology. This acquisition would add a once daily oral H4 receptor antagonist in development for atopic dermatitis (AD), commonly known as eczema, to complement the growing Novartis dermatology portfolio and pipeline. The transaction is expected to be completed first half 2017. The consideration consists of an upfront payment USD 325 million and certain milestones which they are eligible to receive upon achievement of specified milestones.

Innovative Medicines – Acquisition of Encore Vision, Inc.
On December 20, 2016, Novartis entered into a definitive agreement for the acquisition of Encore Vision, Inc., a privately-held company in Fort Worth, Texas, USA, focused on the development of a novel treatment in presbyopia. The transaction is expected to be completed first half 2017. The consideration consists of an upfront payment of USD 375 million and certain milestones which they are eligible to receive upon achievement of specified milestones.

Significant transactions in 2015

Transaction with Eli Lilly and Company
On January 1, 2015, Novartis closed its transaction with Eli Lilly and Company, USA (Lilly) announced in April 2014 to divest its Animal Health business for USD 5.4 billion in cash. This resulted in a pre-tax gain of USD 4.6 billion which was recorded in operating income from discontinued operations.

Transactions with GlaxoSmithKline plc
On March 2, 2015, Novartis closed its transactions with GlaxoSmithKline plc, Great Britain (GSK) announced in April 2014, with the following consequences:

Innovative Medicines – Acquisition of GSK oncology products
Novartis acquired GSK's oncology products and certain related assets for an aggregate cash consideration of USD 16.0 billion. Up to USD 1.5 billion of this cash consideration at the acquisition date is contingent on certain development milestones. The fair value of this potentially refundable consideration is USD 0.1 billion. In addition, under the terms of the agreement, Novartis is granted a right of first negotiation over the co-development or commercialization of GSK's current and future oncology R&D pipeline, excluding oncology vaccines. The right of first negotiation is for a period of 12.5 years from the acquisition closing date. The purchase price allocation of the fair value of the consideration of USD 15.9 billion resulted in net identified assets of USD 13.5 billion and goodwill of USD 2.4 billion. In 2015, from the date of the acquisition the business generated net sales of USD 1.8 billion. Management estimates net sales for the entire year 2015 would have amounted to USD 2.1 billion had the oncology products been acquired at the beginning of the 2015 reporting period. The 2015 net results from operations on a reported basis since the acquisition date were not significant.

Vaccines – Divestment
Novartis divested its Vaccines business (excluding its Vaccines influenza business) to GSK for up to USD 7.1 billion plus royalties. The USD 7.1 billion consists of USD 5.25 billion paid at closing and up to USD 1.8 billion in future milestone payments. The fair value of the contingent future milestones and royalties as at the acquisition date is USD 1.0 billion, resulting in a fair value of consideration received of USD 6.25 billion. Included in this amount is a USD 450 million milestone payment received in late March 2015. The sale of this business resulted in a pre-tax gain of USD 2.8 billion, which is recorded in operating income from discontinued operations.

Novartis's Vaccines influenza business was excluded from the GSK Vaccines business acquisition. However, GSK entered into a future option arrangement with Novartis in relation to the Vaccines influenza business, pursuant to which Novartis could have unilaterally required GSK to acquire the entire or certain parts of its Vaccines influenza business for consideration of up to USD 250 million (the Influenza Put Option) if the divestment to CSL Limited, Australia (CSL), discussed below, had not been completed. The option period was 18 months from the closing date of the GSK transaction, but terminated with the sale of the Vaccines influenza business to CSL on July 31, 2015. Novartis paid GSK a fee of USD 5 million in consideration for the grant of the Influenza Put Option.

Consumer Health – Combination of Novartis OTC with GSK Consumer Healthcare
Novartis and GSK agreed to create a combined consumer healthcare business through the combination between Novartis OTC and GSK Consumer Healthcare businesses. On March 2, 2015, a new entity GlaxoSmithKline Consumer Healthcare Holdings Ltd. (GSK Consumer Healthcare) was formed via contribution of businesses from both Novartis and GSK. Novartis has a 36.5% interest in the newly created entity. Novartis has valued the contribution of 63.5% of its OTC Division in exchange for 36.5% of the GSK Consumer Healthcare business at fair value. Based on the estimates of fair values exchanged, an investment in an associated company of USD 7.6 billion was recorded. The resulting pre-tax gain, net of transaction-related costs, of USD 5.9 billion was recorded in operating income from discontinued operations.

Novartis has four of eleven seats on the GSK Consumer Healthcare Board of Directors. Furthermore, Novartis has customary minority rights and also exit rights at a pre-defined, market-based pricing mechanism.

The investment is accounted for using the equity method of accounting using estimated results for the last quarter of the year. Any differences between this estimate and actual results, when available, will be adjusted in the Group's consolidated financial statements in the following period.

Additional GSK related costs
The GSK transaction resulted in USD 0.6 billion of additional transaction-related costs that were expensed, thereof USD 0.3 billion paid in 2015.

Transaction with CSL
On October 26, 2014, Novartis entered into an agreement with CSL to sell its Vaccines influenza business to CSL for USD 275 million. Entering into the separate divestment agreement with CSL resulted in the Vaccines influenza business being classified as a separate disposal group consisting of a group of cash generating units within the Vaccines Division, requiring the performance of a separate

valuation of the Vaccines influenza business net assets. This triggered the recognition of an exceptional impairment charge in 2014 of USD 1.1 billion as the estimated net book value of the Vaccines influenza business net assets was above the USD 275 million consideration. The transaction with CSL was completed on July 31, 2015, resulting in a partial reversal of the impairment recorded in 2014 in the amount of USD 0.1 billion, which was recorded in the third quarter 2015 operating income from discontinued operations.

Innovative Medicines – Acquisition of Spinifex Pharmaceuticals, Inc.
On June 29, 2015 Novartis entered into an agreement to acquire Spinifex Pharmaceuticals, Inc. (Spinifex), a US and Australia based, privately held development stage company, focused on developing a peripheral approach to treat neuropathic pain. The transaction closed on July 24, 2015, and the fair value of the total purchase consideration was USD 312 million. The amount consisted of an initial cash payment of USD 196 million and the net present value of the contingent consideration of USD 116 million due to previous Spinifex shareholders, which they are eligible to receive upon achievement of specified development and commercialization milestones. The purchase price allocation resulted in net identifiable assets of USD 263 million and goodwill of USD 49 million. The 2015 results of operations since the date of acquisition were not material.

Innovative Medicines – Acquisition of Admune Therapeutics LLC
On October 16, 2015, Novartis acquired Admune Therapeutics LLC (Admune), a US-based, privately held company, broadening Novartis' pipeline of cancer immunotherapies. The fair value of the total purchase consideration amounted to USD 258 million. This amount consists of an initial cash payment of USD 140 million and the net present value of the contingent consideration of USD 118 million due to Admune's previous owners, which they are eligible to receive upon the achievement of specified development and commercialization milestones. The purchase price allocation resulted in net identifiable assets of USD 258 million. No goodwill was recognized. The 2015 results of operations since the date of acquisition were not material.

Continuing operations comprise the businesses of the Innovative Medicines, Sandoz and Alcon Divisions as well as the continuing Corporate activities. Continuing operations also include the results from Oncology assets acquired from GSK and the estimated results from the 36.5% interest in GSK Consumer Healthcare Holdings Ltd. for the period from March 2, 2015 onward (the latter is reported as part of income from associated companies).

Discontinued operations included in 2015 the operational results from the Vaccines influenza business, prior to its divestment to CSL Limited on July 31, 2015, as well as results from the Vaccines non-influenza business and OTC business until March 2, 2015. Operational results from the Animal Health business, which was divested on January 1, 2015, include only the divestment gain.

Discontinued operations in 2015 also included the exceptional pre-tax gains of USD 12.7 billion from the divestment of Animal Health (USD 4.6 billion) and from the transactions with GSK (USD 2.8 billion from the Vaccines non-influenza business and USD 5.9 billion arising from the contribution of Novartis OTC into GSK Consumer Healthcare Holdings Ltd.). In addition the GSK transactions resulted in USD 0.6 billion of additional transaction-related costs, which were expensed and reported in Corporate discontinued operations.

Excluded from discontinued operations are certain intellectual property rights and related other revenues of the Vaccines Division, which are retained by Novartis and are now reported under Corporate activities.

As required by IFRS, results of the discontinued operations excluded any further depreciation and amortization related to discontinued operations from the date of the portfolio transformation announcement of April 22, 2014.

4. Summary of equity attributable to Novartis AG shareholders

	Number of outstanding shares (in millions)			Issued share capital and reserves attributable to Novartis AG shareholders (in USD millions)		
	2016	2015	Change	**FY 2016**	FY 2015	Change
Balance at beginning of year	**2 373.9**	**2 398.6**	**-24.7**	**77 046**	**70 766**	**6 280**
Shares acquired to be held in Group Treasury		-9.6	9.6		-897	897
Shares acquired to be cancelled	-10.3	-49.9	39.6	-784	-4 805	4 021
Other share purchases	-2.6	-4.1	1.5	-208	-417	209
Exercise of options and employee transactions	4.1	27.0	-22.9	214	1 592	-1 378
Equity-based compensation	9.0	11.9	-2.9	664	815	-151
Decrease of treasury share repurchase obligation under a share buyback trading plan					658	-658
Dividends to shareholders of Novartis AG				-6 475	-6 643	168
Net income of the period attributable to shareholders of Novartis AG				6 712	17 783	-11 071
Impact of change in ownership of consolidated entities				-7		-7
Other comprehensive income attributable to shareholders of Novartis AG				-2 330	-1 806	-524
Balance at December 31	**2 374.1**	**2 373.9**	**0.2**	**74 832**	**77 046**	**-2 214**

5. Consolidated income statements – Segmentation

The businesses of Novartis are divided operationally on a worldwide basis into three identified reporting segments, Innovative Medicines, Sandoz and Alcon. In addition, we separately report Corporate activities.

Reporting segments are presented in a manner consistent with the internal reporting to the chief operating decision maker which is the Executive Committee of Novartis. The reporting segments are managed separately because they each research, develop, manufacture, distribute and sell distinct products that require differing marketing strategies.

The Executive Committee of Novartis is responsible for allocating resources and assessing the performance of the reporting segments.

Following the internal reorganization announced on January 27, 2016, the reporting segments and their financial results have been adapted to reflect in all years presented the transfers of:

- Alcon Ophthalmic Pharmaceuticals business franchise from the Alcon Division to the Innovative Medicines Division, the products of which will continue to be marketed with the Alcon brand name.
- Selected mature products from the Innovative Medicines Division to the Retail Generics business franchise of the Sandoz Division.
- The Alcon brand name intangible asset from the Alcon Division to Corporate as it is used to market the products of Alcon Division and products within the Ophthalmology business franchise of the Innovative Medicines Division.

The consolidated financial statement disclosures by segment have been restated to reflect the above mentioned internal reorganization.

Innovative Medicines – formerly named the 'Pharmaceuticals Division' – researches, develops, manufactures, distributes and sells patented prescription medicines. The Innovative Medicines Division is organized into two global business units: Novartis Oncology, which consists of the global business franchises Oncology and Novartis Pharmaceuticals, which consists of the global business franchises Ophthalmology, Neuroscience, Immunology and Dermatology, Respiratory, Cardio-Metabolic and Established Medicines.

Sandoz develops, manufactures, distributes and sells prescription medicines, as well as pharmaceutical active substances, which are not protected by valid and enforceable third-party patents. The Sandoz Division is organized globally in three franchises, Retail Generics, Anti-Infectives and Biopharmaceuticals. In Retail Generics, Sandoz develops, manufactures and markets active ingredients and finished dosage forms of pharmaceuticals to third parties. Retail Generics includes the areas of dermatology, respiratory, oncology and ophthalmics, as well as cardiovascular, metabolism, central nervous system, pain, gastrointestinal, and hormonal therapies. Finished dosage form anti-infectives sold to third parties are also part of Retail Generics. In Anti-Infectives, Sandoz manufactures active pharmaceutical ingredients and intermediates – mainly antibiotics – for internal use by Retail Generics and for sale to third party customers. In Biopharmaceuticals, Sandoz develops, manufactures and markets protein- or other biotechnology-based products known as biosimilars and provides biotechnology manufacturing services to other companies.

Alcon researches, discovers, develops, manufactures, distributes and sells eye care products. The Alcon Division is the global leader in eye care with product offerings in eye care devices and vision care. The Alcon Division is organized globally in two global business franchises as follows: In Surgical, Alcon develops, manufactures, distributes and sells ophthalmic surgical equipment, instruments, disposable products and intraocular lenses. In Vision Care, Alcon develops, manufactures, distributes and sells contact lenses and lens care products.

Details on Corporate, Novartis Institutes for Biomedical Research and Novartis Business Services supporting the divisions are provided in Note 3 to the Consolidated Financial Statements in the Annual Report 2016.

Segmentation – Fourth quarter

(USD millions)	Innovative Medicines [1]		Sandoz		Alcon		Corporate (including eliminations)		Group	
	Q4 2016	Q4 2015 restated [2]	**Q4 2016**	Q4 2015 restated [2]	**Q4 2016**	Q4 2015 restated [2]	**Q4 2016**	Q4 2015 restated [2]	**Q4 2016**	Q4 2015
Net sales to third parties from continuing operations	**8 273**	**8 498**	**2 605**	**2 554**	**1 444**	**1 468**			**12 322**	**12 520**
Sales to continuing segments	160	138	33	27			-193	-165		
Net sales from continuing operations	**8 433**	**8 636**	**2 638**	**2 581**	**1 444**	**1 468**	**-193**	**-165**	**12 322**	**12 520**
Other revenues	256	224	6	7		4	22	49	284	284
Cost of goods sold	-2 435	-2 448	-1 505	-1 515	-782	-789	233	203	-4 489	-4 549
Gross profit from continuing operations	**6 254**	**6 412**	**1 139**	**1 073**	**662**	**683**	**62**	**87**	**8 117**	**8 255**
Marketing & Sales	-2 302	-2 312	-445	-442	-499	-421			-3 246	-3 175
Research & Development	-2 244	-2 141	-209	-210	-131	-121			-2 584	-2 472
General & Administration	-234	-258	-82	-92	-101	-111	-175	-249	-592	-710
Other income	221	260	49	62	2	8	109	266	381	596
Other expense	-335	-462	-87	-100	-53	-9	-146	-246	-621	-817
Operating income from continuing operations	**1 360**	**1 499**	**365**	**291**	**-120**	**29**	**-150**	**-142**	**1 455**	**1 677**
as % of net sales	*16.4%*	*17.6%*	*14.0%*	*11.4%*	*-8.3%*	*2.0%*			*11.8%*	*13.4%*
Income from associated companies			1	1			155	9	156	10
Interest expense									-168	-158
Other financial income and expense									-365	-398
Income before taxes from continuing operations									**1 078**	**1 131**
Taxes									-142	-77
Net income from continuing operations									**936**	**1 054**
Net income from discontinued operations										2
Net income									**936**	**1 056**

[1] Formerly named the Pharmaceuticals Division.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

Segmentation – Full year

(USD millions)	Innovative Medicines [1]		Sandoz		Alcon		Corporate (including eliminations)		Group	
	FY 2016	FY 2015 restated [2]	**FY 2016**	FY 2015 restated [2]	**FY 2016**	FY 2015 restated [2]	**FY 2016**	FY 2015 restated [2]	**FY 2016**	FY 2015
Net sales to third parties from continuing operations	**32 562**	**33 345**	**10 144**	**10 070**	**5 812**	**5 999**			**48 518**	**49 414**
Sales to continuing and discontinued segments	624	518	104	128			-728	-620		26
Net sales from continuing operations	**33 186**	**33 863**	**10 248**	**10 198**	**5 812**	**5 999**	**-728**	**-620**	**48 518**	**49 440**
Other revenues	815	792	37	25	4	23	62	107	918	947
Cost of goods sold	-9 331	-9 204	-5 971	-5 844	-3 092	-3 145	874	789	-17 520	-17 404
Gross profit from continuing operations	**24 670**	**25 451**	**4 314**	**4 379**	**2 724**	**2 877**	**208**	**276**	**31 916**	**32 983**
Marketing & Sales	-8 435	-8 430	-1 681	-1 679	-1 882	-1 663			-11 998	-11 772
Research & Development	-7 709	-7 685	-814	-782	-516	-468			-9 039	-8 935
General & Administration	-978	-1 031	-300	-346	-410	-450	-506	-648	-2 194	-2 475
Other income	1 091	1 149	185	109	48	54	603	737	1 927	2 049
Other expense	-1 213	-1 639	-259	-381	-96	-69	-776	-784	-2 344	-2 873
Operating income from continuing operations	**7 426**	**7 815**	**1 445**	**1 300**	**-132**	**281**	**-471**	**-419**	**8 268**	**8 977**
as % of net sales	*22.8%*	*23.4%*	*14.2%*	*12.9%*	*-2.3%*	*4.7%*			*17.0%*	*18.2%*
Income from associated companies			6	2			697	264	703	266
Interest expense									-707	-655
Other financial income and expense									-447	-454
Income before taxes from continuing operations									**7 817**	**8 134**
Taxes									-1 119	-1 106
Net income from continuing operations									**6 698**	**7 028**
Net income from discontinued operations										10 766
Net income									**6 698**	**17 794**

[1] Formerly named the Pharmaceuticals Division.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

Discontinued operations – Income statement 2015

(USD millions)	Q4 2015	FY 2015
Net sales to third parties of discontinued operations		**601**
Sales to continuing segments		19
Net sales of discontinued operations		**620**
Other revenues		23
Cost of goods sold		-376
Gross profit of discontinued operations		**267**
Marketing & Sales		-244
Research & Development		-181
General & Administration		-58
Other income	5	13 420
Other expense	-99	-727
Operating income of discontinued operations	**-94**	**12 477**
as % of net sales	*nm*	*nm*
Income from associated companies		2
Income before taxes of discontinued operations	**-94**	**12 479**
Taxes	96	-1 713
Net income of discontinued operations	**2**	**10 766**

6. Financial instruments

The following table illustrates the three hierarchical levels for valuing financial instruments at fair value and also those measured at amortized cost or at cost as of December 31, 2016 and December 31, 2015. For additional information on the hierarchies and other matters, please refer to the Consolidated Financial Statements in the 2016 Annual Report, published on January 25, 2017.

	Level 1		Level 2		Level 3		Valued at amortized cost or cost		Total	
(USD millions)	**Dec 31, 2016**	Dec 31, 2015	**Dec 31, 2016**	Dec 31, 2015	**Dec 31, 2016**	Dec 31, 2015	**Dec 31, 2016**	Dec 31, 2015	**Dec 31, 2016**	Dec 31, 2015
Debt securities	284	316	22	23					306	339
Equity securities		6								6
Fund investments	31	29				4			31	33
Total available-for-sale marketable securities	**315**	**351**	**22**	**23**		**4**			**337**	**378**
Time deposits with original maturity more than 90 days							108	164	108	164
Derivative financial instruments			230	143					230	143
Accrued interest on debt securities							1	2	1	2
Total marketable securities, time deposits and derivative financial instruments	**315**	**351**	**252**	**166**		**4**	**109**	**166**	**676**	**687**
Financial investments and long-term loans										
Available-for-sale financial investments	513	700			476	473			989	1 173
Fund investments					107	90			107	90
Contingent consideration receivables					586	550			586	550
Long-term loans and receivables from customers and finance lease, advances, security deposits							514	653	514	653
Financial investments and long-term loans	**513**	**700**			**1 169**	**1 113**	**514**	**653**	**2 196**	**2 466**
Associated companies at fair value through profit or loss					**188**	**181**			**188**	**181**
Contingent consideration payables					-889	-790			-889	-790
Other financial liabilities					-129	-315			-129	-315
Derivative financial instruments			-116	-30					-116	-30
Total financial liabilities at fair value			**-116**	**-30**	**-1 018**	**-1 105**			**-1 134**	**-1 135**

There were no changes in the valuation techniques used for financial instruments in 2016.

The fair value of straight bonds amounted to USD 17.9 billion at December 31, 2016 (USD 17.8 billion at December 31, 2015) compared to the balance sheet value of USD 17.3 billion at December 31, 2016 (USD 17.2 billion at December 31, 2015).

For all other financial assets and liabilities, the carrying amount is a reasonable approximation of the fair value. The carrying amount of financial assets included in the line financial investments and long-term loans amounted to USD 2.2 billion at December 31, 2016 (USD 2.5 billion at December 31, 2015) is included in line “financial and other non-current assets” of the condensed consolidated balance sheets.

The Group’s exposure to financial risks has not changed significantly during the period and there have been no major changes to the risk management department or in any risk management policies.

7. Legal proceedings update

A number of Novartis companies are, and will likely continue to be, subject to various legal proceedings, including litigations, arbitrations and governmental investigations, that arise from time to time. Legal proceedings are inherently unpredictable. As a result, the Group may become subject to substantial liabilities that may not be covered by insurance and may in the future incur judgments or enter into settlements of claims that could have a material adverse effect on its results of operations or cash flow. Note 20 to the Consolidated Financial Statements in our 2015 Annual Report and 2015 Form 20-F contains a summary as of the date of these reports of significant legal proceedings to which Novartis or its subsidiaries were a party. The following is a summary as of January 24, 2017 of significant developments in those proceedings, as well as any new significant proceedings commenced since the date of the 2015 Annual Report and 2015 Form 20-F. Reference is also made to Note 20 to the Consolidated Financial Statements in our 2016 Annual Report and 2016 Form 20-F for a summary of significant legal proceedings.

Investigations and related litigations

Northern District of Texas (NDTX) investigation: Concluded
In 2016, Alcon achieved civil settlements with the US Office of Foreign Assets Control (OFAC) and with the US Department of Commerce's Bureau of Industry and Security to pay a total of USD 9.4 million in civil monetary penalties. The settlements relate to the sale and export of medical end-use surgical and pharmaceutical products that were licensable and in fact had been previously and subsequently licensed by OFAC for Alcon. The United States Attorney's Office (USAO) for the NDTX has advised Alcon that it has closed its investigation without taking action.

District of Massachusetts (D. Mass.) charitable foundation investigation
In May 2016, Novartis Pharmaceuticals Corporation (NPC) received a subpoena from the USAO for the D. Mass. requesting documents related to NPC's support of 501(c)(3) organizations that provide co-payment assistance to Medicare patients who are prescribed Novartis medicines, as well as related to pricing strategies related to *Gleevec*. NPC is cooperating with this investigation which it believes to be part of a broader inquiry into industry practices.

*Lucentis/*Avastin® *matters in Italy and France*
In 2013, the Italian Competition Authority (ICA) opened an investigation to assess whether Novartis Farma S.p.A., Novartis AG (NAG), F. Hoffmann-La Roche AG, Genentech Inc. and Roche S.p.A. colluded to artificially preserve the market positions of Avastin® and *Lucentis*. In March 2014, the ICA imposed a fine equivalent to USD 125 million on NAG and Novartis Farma S.p.A. and a fine on F. Hoffmann-La Roche AG and Roche S.p.A. equivalent to USD 122 million. As required by Italian law, Novartis paid the ICA fine, subject to the right to later claim recoupment. Novartis is appealing against the fines before the Consiglio di Stato (CdS) which has referred five legal questions to the European Court of Justice (ECJ) for a preliminary ruling. The ECJ's judgment is pending. Novartis is also appealing at the CdS the decision of the Tribunale amministrativo regionale del Lazio which has upheld a decision by the Italian Medicines Agency to include Avastin® in a list of drugs to be reimbursed off-label for age-related macular degeneration (AMD). The CdS has referred four legal questions to the ECJ for a preliminary ruling. The ECJ's judgment is pending. In the second quarter of 2014, the Italian Ministry of Health indicated in a letter that it intended to seek a total equivalent of approximately USD 1.2 billion in damages from Novartis and Roche entities based on the above allegations, and in the first quarter of 2015 the Lombardia region sent a payment request equivalent to approximately USD 61 million.

In 2014, the French Competition Authority opened an investigation against Novartis Groupe France with respect to the French market for anti-vascular endothelial growth factor (VEGF) products indicated for the treatment of wet AMD. Novartis' appeal against the Authority's inspection was rejected by the Supreme Court in 2016. Also in France, Novartis' appeal is pending against a temporary recommendation of use and reimbursement of off-label Avastin® for neovascular AMD by hospital ophthalmologists, in force since September 2015. Novartis' appeal against the decree on which the recommendation is based was rejected by the Administrative Supreme Court in 2016. In both Italy and France, Novartis believes that allowing the widespread off-label use and reimbursement of Avastin®, despite the presence of available licensed alternatives, would result in a breach of applicable regulations. Novartis continues to vigorously contest all claims in Italy and France.

China investigations: Concluded
After reports of Chinese government investigations of other pharmaceutical companies for alleged improper use of certain China-based travel agencies to reward healthcare providers, Novartis commenced an internal investigation in 2013 concerning its local affiliates' relationships with China-based travel agencies (and other vendors). In March 2016, NAG achieved a civil settlement with the US Securities and Exchange Commission (SEC) to pay USD 25 million to settle charges that it violated the internal controls and books-and-records provisions of the Foreign Corrupt Practices Act, without admitting or denying the findings. Novartis also agreed for two years to report to the SEC on the status of its remediation and anti-corruption compliance.

South Korea investigation
In Q1 2016, the Seoul Western District Prosecutor initiated a criminal investigation into, among other things, allegations that Novartis Korea utilized medical journals to provide inappropriate economic benefits to healthcare professionals (HCPs). In September 2016, a criminal trial began concerning the Prosecutor's allegations that Novartis Korea utilized medical journals to provide inappropriate economic benefits to HCPs. Separately, upon request by the Prosecutor's office, the Korea Fair Trade Commission is investigating whether sponsorships by Novartis Korea of HCPs to overseas academic conferences constitute a violation of fair trade laws. In addition, the Ministry of Food and Drug Safety and the Ministry of Health and Welfare are also reviewing the matter and are evaluating administrative sanctions on Novartis Korea.

Greece investigation
Novartis is investigating allegations of potentially inappropriate economic benefits in Greece to HCPs and others. Information has been provided to the Greek authorities by Novartis (Hellas) S.A.C.I. related to these allegations. Novartis is also responding to document requests from the SEC and US Department of Justice in connection with such allegations and is cooperating with their investigation.

In addition to the matters described above, there have been other developments in the other legal matters described in Note 20 to the Consolidated Financial Statements contained in our 2015 Annual Report and 2015 Form 20-F. These do not significantly affect the assessment of management concerning the adequacy of the total provisions recorded for legal proceedings.

8. Subsequent events

For significant transactions entered into in 2016 and closed in January 2017, see Note 3.

SUPPLEMENTARY INFORMATION (unaudited)

Non-IFRS disclosures

Core results

The Group's core results – including core operating income, core net income and core earnings per share – exclude fully the amortization and impairment charges of intangible assets, excluding software, and certain acquisition related items. The following items that exceed a threshold of USD 25 million are also excluded: integration and divestment related income and expenses, divestment gains and losses, restructuring charges/releases, legal related items, impairments of property, plant and equipment and financial assets, as well as income and expense items that management deems exceptional and that are or are expected to accumulate within the year to be over a USD 25 million threshold.

Novartis believes that investor understanding of the Group's performance is enhanced by disclosing core measures of performance because, since they exclude items which can vary significantly from year to year, the core measures enable better comparison of business performance across years. For this same reason, Novartis uses these core measures in addition to IFRS and other measures as important factors in assessing the Group's performance.

The following are examples of how these core measures are utilized:

- In addition to monthly reports containing financial information prepared under International Financial Reporting Standards (IFRS), senior management receives a monthly analysis incorporating these core measures.
- Annual budgets are prepared for both IFRS and core measures.

Despite the use of these measures by management in setting goals and measuring the Group's performance, these are non-IFRS measures that have no standardized meaning prescribed by IFRS. As a result, such measures have limits in usefulness to investors.

Because of their non-standardized definitions, the core measures (unlike IFRS measures) may not be comparable to the calculation of similar measures of other companies. These core measures are presented solely to permit investors to more fully understand how the Group's management assesses underlying performance. These core measures are not, and should not be viewed as, a substitute for IFRS measures.

As an internal measure of Group performance, these core measures have limitations, and the Group's performance management process is not solely restricted to these metrics. A limitation of the core measures is that they provide a view of the Group's operations without including all events during a period, such as the effects of an acquisition, divestment, or amortization/impairments of purchased intangible assets and restructurings.

Constant currencies

Changes in the relative values of non-US currencies to the US dollar can affect the Group's financial results and financial position. To provide additional information that may be useful to investors, including changes in sales volume, we present information about our net sales and various values relating to operating and net income that are adjusted for such foreign currency effects.

Constant currency calculations have the goal of eliminating two exchange rate effects so that an estimate can be made of underlying changes in the consolidated income statement excluding the impact of fluctuations in exchanges rates:

- the impact of translating the income statements of consolidated entities from their non-USD functional currencies to USD; and
- the impact of exchange rate movements on the major transactions of consolidated entities performed in currencies other than their functional currency.

We calculate constant currency measures by translating the current year's foreign currency values for sales and other income statement items into USD using the average exchange rates from the prior year and comparing them to the prior year values in USD.

We use these constant currency measures in evaluating the Group's performance, since they may assist us in evaluating our ongoing performance from year to year. However, in performing our evaluation, we also consider equivalent measures of performance which are not affected by changes in the relative value of currencies.

Growth rate calculation

For ease of understanding, Novartis uses a sign convention for its growth rates such that a reduction in operating expenses or losses compared to the prior year is shown as a positive growth.

Net debt and free cash flow

Net debt and free cash flow are non-IFRS financial measures, which means they should not be interpreted as measures determined under IFRS. Net debt is presented as additional information because management believes it is a useful supplemental indicator of the Group's ability to pay dividends, to meet financial commitments and to invest in new strategic opportunities, including strengthening its balance sheet. Free cash flow is presented as additional information because management believes it is a useful supplemental indicator of the Group's ability to operate without reliance on additional borrowing or use of existing cash. Free cash flow is a measure of the net cash generated that is available for debt repayment, investment in strategic opportunities and for returning to shareholders. The definition of free cash flow used by Novartis does not include amounts related to changes in investments in associated companies nor related to acquisitions or divestments of subsidiaries. Free cash flow is not intended to be a substitute measure for cash flow from operating activities as determined under IFRS.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Fourth quarter

	Innovative Medicines [1]		Sandoz		Alcon		Corporate		Group	
(USD millions)	Q4 2016	Q4 2015 restated [2]	Q4 2016	Q4 2015 restated [2]	Q4 2016	Q4 2015 restated [2]	Q4 2016	Q4 2015	Q4 2016	Q4 2015
IFRS Operating income from continuing operations	**1 360**	**1 499**	**365**	**291**	**-120**	**29**	**-150**	**-142**	**1 455**	**1 677**
Amortization of intangible assets	**605**	**637**	**115**	**114**	**229**	**217**			**949**	**968**
Impairments										
Intangible assets	433	-14	5	15		1			438	2
Property, plant & equipment related to the Group-wide rationalization of manufacturing sites	1	5	-9						-8	5
Other property, plant & equipment	9	3		13		1		15	9	32
Financial assets	7	3					28	57	35	60
Total impairment charges	**450**	**-3**	**-4**	**28**		**2**	**28**	**72**	**474**	**99**
Acquisition or divestment related items										
- Income	-54	-8		-1			-45	-80	-99	-89
- Expense	11	45		1			45	85	56	131
Total acquisition or divestment related items, net	**-43**	**37**		**0**			**0**	**5**	**-43**	**42**
Other items										
Divestment gains	-38	-145						-54	-38	-199
Restructuring items										
- Income	-15	-16	8		-2	-2	-1	-4	-10	-22
- Expense	138	132	31	15	7	7	23	15	199	169
Legal-related items										
- Expense		165		34						199
Additional income	-50						-2	-26	-52	-26
Additional expense		105	6	15	49	11	24	19	79	150
Total other items	**35**	**241**	**45**	**64**	**54**	**16**	**44**	**-50**	**178**	**271**
Total adjustments	**1 047**	**912**	**156**	**206**	**283**	**235**	**72**	**27**	**1 558**	**1 380**
Core operating income from continuing operations	**2 407**	**2 411**	**521**	**497**	**163**	**264**	**-78**	**-115**	**3 013**	**3 057**
as % of net sales	*29.1%*	*28.4%*	*20.0%*	*19.5%*	*11.3%*	*18.0%*			*24.5%*	*24.4%*
Income from associated companies			1	1			155	9	156	10
Core adjustments to income from associated companies, net of tax							124	233	124	233
Interest expense									-168	-158
Other financial income and expense [3]									-17	-32
Taxes (adjusted for above items)									-450	-403
Core net income from continuing operations									**2 658**	**2 707**
Core net loss from discontinued operations										-48
Core net income									**2 658**	**2 659**
Core net income attributable to shareholders of Novartis AG									**2 658**	**2 657**
Core basic EPS from continuing operations (USD) [4]									**1.12**	**1.14**
Core basic EPS from discontinued operations (USD) [4]										-0.03
Total core basic EPS (USD) [4]									**1.12**	**1.11**

[1] Formerly named the Pharmaceuticals Division.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.
[3] Adjusted for charges of USD 0.3 billion related mainly to devaluation losses in Venezuela (Q4 2015: USD 0.4 billion).
[4] Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Full year

	Innovative Medicines [1]		Sandoz		Alcon		Corporate		Group	
(USD millions)	**FY 2016**	FY 2015 restated [2]	**FY 2016**	FY 2015 restated [2]	**FY 2016**	FY 2015 restated [2]	**FY 2016**	FY 2015	**FY 2016**	FY 2015
IFRS Operating income from continuing operations	**7 426**	**7 815**	**1 445**	**1 300**	**-132**	**281**	**-471**	**-419**	**8 268**	**8 977**
Amortization of intangible assets	**2 440**	**2 367**	**460**	**447**	**901**	**895**			**3 801**	**3 709**
Impairments										
Intangible assets	522	138	65	27	4	1			591	166
Property, plant & equipment related to the Group-wide rationalization of manufacturing sites	1	6	-7	83					-6	89
Other property, plant & equipment	76	-45	8	14		1		21	84	-9
Financial assets	18	32					99	91	117	123
Total impairment charges	**617**	**131**	**66**	**124**	**4**	**2**	**99**	**112**	**786**	**369**
Acquisition or divestment related items										
- Income	-68	-22		-1			-229	-260	-297	-283
- Expense	41	214		1			223	250	264	465
Total acquisition or divestment related items, net	**-27**	**192**		**0**			**-6**	**-10**	**-33**	**182**
Other items										
Divestment gains	-608	-626	-6				-48	-54	-662	-680
Restructuring items										
- Income	-41	-30	-23		-4	-4	-5	-5	-73	-39
- Expense	418	422	123	121	33	29	65	57	639	629
Legal-related items										
- Income	-99								-99	
- Expense	205	578		40		4		-30	205	592
Additional income	-61	-119		-2	-13	-5	-22	-68	-96	-194
Additional expense	84	132	6	15	61	33	100	65	251	245
Total other items	**-102**	**357**	**100**	**174**	**77**	**57**	**90**	**-35**	**165**	**553**
Total adjustments	**2 928**	**3 047**	**626**	**745**	**982**	**954**	**183**	**67**	**4 719**	**4 813**
Core operating income from continuing operations	**10 354**	**10 862**	**2 071**	**2 045**	**850**	**1 235**	**-288**	**-352**	**12 987**	**13 790**
as % of net sales	*31.8%*	*32.6%*	*20.4%*	*20.3%*	*14.6%*	*20.6%*			*26.8%*	*27.9%*
Income from associated companies			6	2			697	264	703	266
Core adjustments to income from associated companies, net of tax							431	715	431	715
Interest expense									-707	-655
Other financial income and expense [3]									-99	-24
Taxes (adjusted for above items)									-2 001	-2 051
Core net income from continuing operations									**11 314**	**12 041**
Core net loss from discontinued operations										-256
Core net income									**11 314**	**11 785**
Core net income attributable to shareholders of Novartis AG									**11 307**	**11 774**
Core basic EPS from continuing operations (USD) [4]									**4.75**	**5.01**
Core basic EPS from discontinued operations (USD) [4]										-0.11
Total core basic EPS (USD) [4]									**4.75**	**4.90**

[1] Formerly named the Pharmaceuticals Division.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016
[3] Adjusted for charges of USD 0.3 billion related mainly to devaluation losses in Venezuela (FY 2015: USD 0.4 billion).
[4] Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Fourth quarter

(USD millions)	Q4 2016 IFRS results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment related items, including restructuring and integration charges[3]	Other items[4]	Q4 2016 Core results	Q4 2015 Core results
Gross profit from continuing operations	**8 117**	**936**	**45**		**-32**	**9 066**	**9 264**
Operating income from continuing operations	**1 455**	**949**	**474**	**-43**	**178**	**3 013**	**3 057**
Income before taxes from continuing operations	**1 078**	**1 022**	**474**	**-43**	**577**	**3 108**	**3 110**
Taxes from continuing operations[5]	-142					-450	-403
Net income from continuing operations	**936**					**2 658**	**2 707**
Net loss from discontinued operations							-48
Net income	**936**					**2 658**	**2 659**
Basic EPS from continuing operations (USD)[6]	**0.40**					**1.12**	**1.14**
Basic EPS from discontinued operations (USD)[6]							-0.03
Total basic EPS (USD)[6]	**0.40**					**1.12**	**1.11**
The following are adjustments to arrive at Core Gross Profit from continuing operations							
Other revenues	284				-50	234	284
Cost of goods sold	-4 489	936	45		18	-3 490	-3 540
The following are adjustments to arrive at Core Operating Income from continuing operations							
Marketing & Sales	-3 246				7	-3 239	-3 139
Research & Development	-2 584	13	393		5	-2 173	-2 378
General & Administration	-592				19	-573	-674
Other income	381		-10	-99	-50	222	256
Other expense	-621		46	56	229	-290	-272
The following are adjustments to arrive at Core Income before taxes from continuing operations							
Income from associated companies	156	73			51	280	243
Other financial income and expense	-365				348	-17	-32

[1] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; Research & Development includes the recurring amortization of acquired rights for technology platforms; Income from associated companies includes USD 73 million for the Novartis share of the estimated Roche core items.

[2] Impairments: Cost of goods sold and Research & Development include impairment charges related to intangible assets; Other income includes impairment reversals of property, plant and equipment; Other expense includes impairment charges related to property, plant and equipment and financial assets.

[3] Acquisition or divestment related items, including restructuring and integration charges: Other income and Other expense include transitional service-fee income and expenses and other items related to the portfolio transformation; Other income also includes a gain from the revaluation of a previously held financial investment in a newly acquired company.

[4] Other items: Other revenues include an early release of deferred income associated with a collaboration agreement; Cost of goods sold, Other income and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Research & Development, Marketing & Sales, Other income and Other expense include other restructuring income and charges; General & Administration includes items related to setup costs for Novartis Business Services; Other income also includes gains from product divestments and other income related to the portfolio transformation; Other expense also includes a charge for an indirect tax settlement and other costs; Income from associated companies includes an adjustment of USD 51 million for the Novartis share of the estimated GSK Consumer Healthcare Holdings Ltd. core items; Other financial income and expense relates mainly to devaluation losses in Venezuela.

[5] Taxes on the adjustments between IFRS and core results take into account, for each individual item included in the adjustment, the tax rate that will finally be applicable to the item based on the jurisdiction where the adjustment will finally have a tax impact. Generally, this results in amortization and impairment of intangible assets and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items although this is not always the case for items arising from legal settlements in certain jurisdictions. Adjustments related to income from associated companies are recorded net of any related tax effect. Due to these factors and the differing effective tax rates in the various jurisdictions, the tax on the total adjustments for continuing operations of USD 2.0 billion to arrive at the core results before tax amounts to USD 308 million. The average tax rate on the adjustments for continuing operations is 15.2% since the estimated full year tax charge has been applied to the pre-tax income of the period.

[6] Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Group – Full year

(USD millions)	FY 2016 IFRS results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment related items, including restructuring and integration charges[3]	Other items[4]	FY 2016 Core results	FY 2015 Core results
Gross profit from continuing operations	**31 916**	**3 758**	**96**		**36**	**35 806**	**36 900**
Operating income from continuing operations	**8 268**	**3 801**	**786**	**-33**	**165**	**12 987**	**13 790**
Income before taxes from continuing operations	**7 817**	**4 097**	**786**	**-33**	**648**	**13 315**	**14 092**
Taxes from continuing operations[5]	-1 119					-2 001	-2 051
Net income from continuing operations	**6 698**					**11 314**	**12 041**
Net loss from discontinued operations							-256
Net income	**6 698**					**11 314**	**11 785**
Basic EPS from continuing operations (USD)[6]	**2.82**					**4.75**	**5.01**
Basic EPS from discontinued operations (USD)[6]							-0.11
Total basic EPS (USD)[6]	**2.82**					**4.75**	**4.90**
The following are adjustments to arrive at Core Gross Profit from continuing operations							
Other revenues	918				-50	868	919
Cost of goods sold	-17 520	3 758	96		86	-13 580	-13 459
The following are adjustments to arrive at Core Operating Income from continuing operations							
Marketing & Sales	-11 998				7	-11 991	-11 729
Research & Development	-9 039	43	495		99	-8 402	-8 738
General & Administration	-2 194				74	-2 120	-2 389
Other income	1 927		-10	-297	-867	753	823
Other expense	-2 344		205	264	816	-1 059	-1 077
The following are adjustments to arrive at Core Income before taxes from continuing operations							
Income from associated companies	703	296			135	1 134	981
Other financial income and expense	-447				348	-99	-24

[1] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; Research & Development includes the recurring amortization of acquired rights for technology platforms; Income from associated companies includes USD 296 million for the Novartis share of the estimated Roche core items.

[2] Impairments: Cost of goods sold and Research & Development include impairment charges related to intangible assets; Other income includes impairment reversals of property, plant and equipment; Other expense includes impairment charges related to property, plant and equipment, and financial assets.

[3] Acquisition or divestment related items, including restructuring and integration charges: Other income and Other expense include transitional service-fee income and expenses and other items related to the portfolio transformation; Other income also includes a gain from the revaluation of a previously held financial investment in a newly acquired company.

[4] Other items: Other revenues include an early release of deferred income associated with a collaboration agreement; Cost of goods sold, Other income and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Research & Development, Marketing & Sales, Other income and Other expense include other restructuring income and charges; Cost of goods sold and Research & Development include adjustments of contingent considerations; General & Administration, Other income and Other expense include items related to setup costs for Novartis Business Services; Other income and Other expense also include legal settlements and changes in provisions; Other income also includes gains from product divestments, other income related to the portfolio transformation and a gain related to the sale of real estate; Other expense also includes a charge as a result of a pension plan amendment, a charge for an indirect tax settlement and other costs; Income from associated companies includes USD 135 million for the Novartis share of the estimated GSK Consumer Healthcare Holdings Ltd. core items; Other financial income and expense relates mainly to devaluation losses in Venezuela.

[5] Taxes on the adjustments between IFRS and core results take into account, for each individual item included in the adjustment, the tax rate that will finally be applicable to the item based on the jurisdiction where the adjustment will finally have a tax impact. Generally, this results in amortization and impairment of intangible assets and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items, although this is not always the case for items arising from legal settlements in certain jurisdictions. Adjustments related to income from associated companies are recorded net of any related tax effect. Due to these factors and the differing effective tax rates in the various jurisdictions, the tax on the total adjustments for continuing operations of USD 5.5 billion to arrive at the core results before tax amounts to USD 882 million. The average tax rate on the adjustments for continuing operations is 16.0% since the estimated full-year tax charge has been applied to the pre-tax income of the period.

[6] Earnings per share (EPS) is calculated on the amount of net income attributable to shareholders of Novartis AG.

CORE RESULTS – Reconciliation from IFRS results to core results – Innovative Medicines[1] – Fourth quarter

(USD millions)	Q4 2016 IFRS results	Amortization of intangible assets[2]	Impairments[3]	Acquisition or divestment related items, including restructuring and integration charges[4]	Other items[5]	Q4 2016 Core results	Q4 2015 restated Core results[6]
Gross profit	**6 254**	**594**	**40**		**-43**	**6 845**	**7 057**
Operating income	**1 360**	**605**	**450**	**-43**	**35**	**2 407**	**2 411**
The following are adjustments to arrive at Core Gross Profit							
Other revenues	256				-50	206	224
Cost of goods sold	-2 435	594	40		7	-1 794	-1 803
The following are adjustments to arrive at Core Operating Income							
Marketing & Sales	-2 302				7	-2 295	-2 276
Research & Development	-2 244	11	393		5	-1 835	-2 052
Other income	221			-54	-53	114	86
Other expense	-335		17	11	119	-188	-146

[1] Formerly named the Pharmaceuticals Division.
[2] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; Research & Development includes the recurring amortization of acquired rights for technology platforms.
[3] Impairments: Cost of goods sold and Research & Development include impairment charges related to intangible assets; Other expense includes impairment charges related to property, plant and equipment, and financial assets.
[4] Acquisition or divestment related items, including restructuring and integration charges: Other income and Other expense include transitional service-fee income and expenses and other items related to the portfolio transformation; Other income also includes a gain from the revaluation of a previously held financial investment in a newly acquired company.
[5] Other items: Other revenues include an early release of deferred income associated with a collaboration agreement; Cost of goods sold and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Research & Development, Marketing & Sales, Other income and Other expense also include other restructuring income and charges; Other income also includes gains from product divestments.
[6] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

CORE RESULTS – Reconciliation from IFRS results to core results – Innovative Medicines[1] – Full year

(USD millions)	FY 2016 IFRS results	Amortization of intangible assets[2]	Impairments[3]	Acquisition or divestment related items, including restructuring and integration charges[4]	Other items[5]	FY 2016 Core results	FY 2015 restated Core results[6]
Gross profit	**24 670**	**2 409**	**41**		**-11**	**27 109**	**27 975**
Operating income	**7 426**	**2 440**	**617**	**-27**	**-102**	**10 354**	**10 862**
The following are adjustments to arrive at Core Gross Profit							
Other revenues	815				-50	765	764
Cost of goods sold	-9 331	2 409	41		39	-6 842	-6 652
The following are adjustments to arrive at Core Operating Income							
Marketing & Sales	-8 435				7	-8 428	-8 387
Research & Development	-7 709	31	481		85	-7 112	-7 502
Other income	1 091			-68	-759	264	324
Other expense	-1 213		95	41	576	-501	-517

[1] Formerly named the Pharmaceuticals Division.
[2] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; Research & Development includes the recurring amortization of acquired rights for technology platforms.
[3] Impairments: Cost of goods sold and Research & Development include impairment charges related to intangible assets; Other expense includes impairment charges related to property, plant and equipment, and financial assets.
[4] Acquisition or divestment related items, including restructuring and integration charges: Other income and Other expense include transitional service-fee income and expenses and other items related to the portfolio transformation; Other income also includes a gain from the revaluation of a previously held financial investment in a newly acquired company.
[5] Other items: Other revenues include an early release of deferred income associated with a collaboration agreement; Cost of goods sold, Other income and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Research & Development, Marketing & Sales, Other income and Other expense include other restructuring income and charges; Research & Development also includes an expense due to an adjustment of a contingent consideration; Other income and Other expense also include legal settlements and changes in provisions; Other income also includes gains from product divestments; Other expense also includes a charge as a result of a pension plan amendment.
[6] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

CORE RESULTS – Reconciliation from IFRS results to core results – Sandoz – Fourth quarter

(USD millions)	Q4 2016 IFRS results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment related items, including restructuring and integration charges	Other items[3]	Q4 2016 Core results	Q4 2015 restated Core results[4]
Gross profit	**1 139**	**115**	**5**		**11**	**1 270**	**1 222**
Operating income	**365**	**115**	**-4**		**45**	**521**	**497**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-1 505	115	5		11	-1 374	-1 366
The following are adjustments to arrive at Core Operating Income							
Other income	49		-10		8	47	61
Other expense	-87		1		26	-60	-43

[1] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets.
[2] Impairments: Cost of goods sold includes impairment charges related to intangible assets; Other income includes impairment reversals of property, plant and equipment; Other expense includes impairment charges related to property, plant and equipment.
[3] Other items: Cost of goods sold and Other income include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Other expense also includes other restructuring charges and other costs.
[4] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

CORE RESULTS – Reconciliation from IFRS results to core results – Sandoz – Full year

(USD millions)	FY 2016 IFRS results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment related items, including restructuring and integration charges	Other items[3]	FY 2016 Core results	FY 2015 restated Core results[4]
Gross profit	**4 314**	**460**	**55**		**60**	**4 889**	**4 885**
Operating income	**1 445**	**460**	**66**		**100**	**2 071**	**2 045**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-5 971	460	55		60	-5 396	-5 338
The following are adjustments to arrive at Core Operating Income							
Research & Development	-814		10			-804	-781
Other income	185		-10		-29	146	104
Other expense	-259		11		69	-179	-138

[1] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets.
[2] Impairments: Cost of goods sold and Research & Development include impairment charges related to intangible assets; Other income includes impairment reversals of property, plant and equipment; Other expense includes impairment charges related to property, plant and equipment.
[3] Other items: Cost of goods sold, Other income and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Cost of goods sold, Other income and Other expense also include other restructuring income and charges; Other income also includes gains from product divestments; Other expense also includes other costs.
[4] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

CORE RESULTS – Reconciliation from IFRS results to core results – Alcon – Fourth quarter

(USD millions)	Q4 2016 IFRS results	Amortization of intangible assets[1]	Impairments	Acquisition or divestment related items, including restructuring and integration charges	Other items[2]	Q4 2016 Core results	Q4 2015 restated Core results[3]
Gross profit	**662**	**227**				**889**	**898**
Operating loss/income	**-120**	**229**			**54**	**163**	**264**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-782	227				-555	-574
The following are adjustments to arrive at Core Operating Income							
Research & Development	-131	2				-129	-117
Other income	2				-2		6
Other expense	-53				56	3	-1

[1] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; Research & Development includes the recurring amortization of acquired rights for technology platforms;
[2] Other items: Other income and Other expense include restructuring income and charges; Other expenses also includes a charge for an indirect tax settlement.
[3] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

CORE RESULTS – Reconciliation from IFRS results to core results – Alcon – Full year

(USD millions)	FY 2016 IFRS results	Amortization of intangible assets [1]	Impairments [2]	Acquisition or divestment related items, including restructuring and integration charges	Other items [3]	FY 2016 Core results	FY 2015 restated Core results [4]
Gross profit	**2 724**	**889**			**-13**	**3 600**	**3 764**
Operating loss/income	**-132**	**901**	**4**		**77**	**850**	**1 235**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-3 092	889			-13	-2 216	-2 258
The following are adjustments to arrive at Core Operating Income							
Research & Development	-516	12	4		14	-486	-455
Other income	48				-4	44	45
Other expense	-96				80	-16	-38

[1] Amortization of intangible assets: Cost of goods sold includes recurring amortization of acquired rights to in-market products and other production-related intangible assets; Research & Development includes the recurring amortization of acquired rights for technology platforms;
[2] Impairments: Research & Development includes impairment charges related to intangible assets.
[3] Other items: Cost of goods sold includes an income due to an adjustment of a contingent consideration; Research & Development, Other income and Other expense include restructuring income and charges; Research & Development also includes an expense due to an adjustment of a contingent consideration; Other expense also includes a charge for an indirect tax settlement.
[4] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.

CORE RESULTS – Reconciliation from IFRS results to core results – Corporate – Fourth quarter

(USD millions)	Q4 2016 IFRS results	Amortization of intangible assets	Impairments [1]	Acquisition or divestment related items, including restructuring and integration charges [2]	Other items [3]	Q4 2016 Core results	Q4 2015 Core results
Gross profit	**62**					**62**	**87**
Operating loss	**-150**		**28**		**44**	**-78**	**-115**
The following are adjustments to arrive at Core Operating Loss							
General & Administration	-175				19	-156	-223
Other income	109			-45	-3	61	103
Other expense	-146		28	45	28	-45	-82

[1] Impairments: Other expense includes impairment charges related to financial assets.
[2] Acquisition or divestment related items, including restructuring and integration charges: Other income and Other expense include transitional service-fee income and expenses and other items related to the portfolio transformation.
[3] Other items: General & Administration, Other income and Other expense include items related to setup costs for Novartis Business Services; Other income also includes an income related to the portfolio transformation; Other expense also includes other restructuring charges and other costs.

CORE RESULTS – Reconciliation from IFRS results to core results – Corporate – Full year

(USD millions)	FY 2016 IFRS results	Amortization of intangible assets	Impairments [1]	Acquisition or divestment related items, including restructuring and integration charges [2]	Other items [3]	FY 2016 Core results	FY 2015 Core results
Gross profit	**208**					**208**	**276**
Operating loss	**-471**		**99**	**-6**	**90**	**-288**	**-352**
The following are adjustments to arrive at Core Operating Loss							
General & Administration	-506				74	-432	-594
Other income	603			-229	-75	299	350
Other expense	-776		99	223	91	-363	-384

[1] Impairments: Other expense includes impairment charges related to financial assets.
[2] Acquisition or divestment related items, including restructuring and integration charges: Other income and Other expense include transitional service-fee income and expenses and other items related to the portfolio transformation.
[3] Other items: General & Administration, Other income and Other expense include items related to setup costs for Novartis Business Services; Other income also includes an income related to the portfolio transformation and a gain related to the sale of real estate; Other expense also includes other restructuring charges and other costs.

CORE RESULTS – Discontinued operations – Fourth quarter 2015

(USD millions)	Q4 2015 Core results
Operating loss	**-2**
Loss before taxes	**-2**
Taxes	-46
Net loss	**-48**
Basic EPS (USD)	**-0.03**
The following accounts have been adjusted to arrive at Core Operating Loss	
Other income	4
Other expense	-6

CORE RESULTS – Discontinued operations – Full year 2015

(USD millions)	FY 2015 Core results
Gross profit	**273**
Operating loss	**-225**
Loss before taxes	**-223**
Taxes	-33
Net loss	**-256**
Basic EPS (USD)	**-0.11**
The following accounts have been adjusted to arrive at Core Gross Profit	
Cost of goods sold	-370
The following accounts have been adjusted to arrive at Core Operating Loss	
Other income	109
Other expense	-124

Condensed consolidated changes in net debt

Fourth quarter

(USD millions)	**Q4 2016**	Q4 2015
Change in cash and cash equivalents	**-167**	**-654**
Change in marketable securities, commodities, financial debt and financial derivatives	2 923	807
Reduction in net debt	**2 756**	**153**
Net debt at October 1	-18 781	-16 637
Net debt at December 31	**-16 025**	**-16 484**

Full year

(USD millions)	**FY 2016**	FY 2015
Change in cash and cash equivalents	**2 333**	**-8 349**
Change in marketable securities, commodities, financial debt and financial derivatives	-1 874	-1 586
Reduction/Increase in net debt	**459**	**-9 935**
Net debt at January 1	-16 484	-6 549
Net debt at December 31	**-16 025**	**-16 484**

Components of net debt

(USD millions)	**Dec 31, 2016**	Dec 31, 2015
Current financial debts and derivative financial instruments	-5 905	-5 604
Non-current financial debts	-17 897	-16 327
Less liquidity:		
Cash and cash equivalents	7 007	4 674
Marketable securities, commodities and derivative financial instruments	770	773
Net debt at December 31	**-16 025**	**-16 484**

Share information

	Dec 31, 2016	Dec 31, 2015
Number of shares outstanding	**2 374 059 013**	2 373 894 817
Registered share price (CHF)	**74.10**	86.80
ADR price (USD)	**72.84**	86.04
Market capitalization (USD billions)	**172.0**	208.3
Market capitalization (CHF billions)	**175.9**	206.1

Free cash flow

Fourth quarter

(USD millions)	**Q4 2016**	Q4 2015	Change
Operating income from continuing operations	**1 455**	**1 677**	**-222**
Reversal of non-cash items			
Depreciation, amortization and impairments	1 832	1 429	403
Change in provisions and other non-current liabilities	219	518	-299
Other	-41	-70	29
Operating income adjusted for non-cash items	**3 465**	**3 554**	**-89**
Interest and other financial receipts	237	73	164
Interest and other financial payments	-201	-150	-51
Taxes paid	-791	-528	-263
Payments out of provisions and other net cash movements in non-current liabilities	-184	-291	107
Change in inventory and trade receivables less trade payables	613	1 190	-577
Change in other net current assets and other operating cash flow items	452	249	203
Cash flows from operating activities from continuing operations	**3 591**	**4 097**	**-506**
Purchase of property, plant & equipment	-586	-753	167
Purchase of intangible, financial and other non-current assets	-326	-561	235
Proceeds from sales of property, plant & equipment, intangible and financial assets	297	159	138
Free cash flow from continuing operations	**2 976**	**2 942**	**34**
Free cash flow from discontinued operations		60	-60
Total free cash flow	**2 976**	**3 002**	**-26**

Full year

(USD millions)	**FY 2016**	FY 2015	Change
Operating income from continuing operations	**8 268**	**8 977**	**-709**
Reversal of non-cash items			
Depreciation, amortization and impairments	6 175	5 575	600
Change in provisions and other non-current liabilities	956	1 642	-686
Other	-264	-96	-168
Operating income adjusted for non-cash items	**15 135**	**16 098**	**-963**
Interest and other financial receipts	942	1 180	-238
Interest and other financial payments	-878	-669	-209
Taxes paid	-2 111	-2 454	343
Payments out of provisions and other net cash movements in non-current liabilities	-1 536	-1 207	-329
Change in inventory and trade receivables less trade payables	-1 051	-617	-434
Change in other net current assets and other operating cash flow items	974	-246	1 220
Cash flows from operating activities from continuing operations	**11 475**	**12 085**	**-610**
Purchase of property, plant & equipment	-1 862	-2 367	505
Purchase of intangible, financial and other non-current assets	-1 413	-1 484	71
Proceeds from sales of property, plant & equipment, intangible and financial assets	1 255	1 025	230
Free cash flow from continuing operations	**9 455**	**9 259**	**196**
Free cash flow from discontinued operations		-230	230
Total free cash flow	**9 455**	**9 029**	**426**

Net sales of the top 20 Innovative Medicines[1] products in 2016 –Fourth quarter

			US		Rest of world		Total		
Brands	**Business Franchise**	**Indication**	**USD m**	**% change in constant currencies**	**USD m**	**% change in constant currencies**	**USD m**	**% change in USD**	**% change in constant currencies**
Gleevec/Glivec	Oncology	Chronic myeloid leukemia and GIST	257	-62	507	-4	**764**	**-37**	**-36**
Gilenya	Neuroscience	Relapsing multiple sclerosis	440	7	370	16	**810**	**9**	**11**
Lucentis	Ophthalmology	Age-related macular degeneration			452	-6	**452**	**-9**	**-6**
Tasigna	Oncology	Chronic myeloid leukemia	191	16	267	5	**458**	**6**	**9**
Sandostatin	Oncology	Carcinoid tumors and Acromegaly	218	6	190	-5	**408**	**-1**	**1**
Afinitor/Votubia	Oncology	Breast cancer / TSC	199	1	192	5	**391**	**2**	**3**
Galvus	Cardio-Metabolic	Diabetes			298	0	**298**	**1**	**0**
Cosentyx	Immunology and Dermatology	Psoriasis, ankylosing spondylitis and psoriatic arthritis	257	nm	134	nm	**391**	**nm**	**nm**
Diovan/Co–Diovan	Established Medicines	Hypertension	37	-20	220	-6	**257**	**-12**	**-8**
Exjade/Jadenu	Oncology	Chronic iron overload	106	9	131	-12	**237**	**-4**	**-3**
Exforge	Established Medicines	Hypertension	5	-44	232	0	**237**	**-5**	**-2**
Xolair[2]	Respiratory	Asthma			216	13	**216**	**10**	**13**
Votrient	Oncology	Renal cell carcinoma	93	7	99	13	**192**	**9**	**10**
Tafinlar/Mekinist	Oncology	Melanoma	76	-4	102	56	**178**	**21**	**24**
Promacta/Revolade	Oncology	Immune thrombocytopenic purpura	90	43	88	28	**178**	**34**	**35**
Travoprost Group	Ophthalmology	Reduction of elevated intraocular pressure	57	19	104	1	**161**	**7**	**7**
Jakavi	Oncology	Myelofibrosis			162	40	**162**	**36**	**40**
Voltaren/Cataflam	Established Medicines	Inflammation/pain			136	9	**136**	**-3**	**9**
Neoral/Sandimmun(e)	Immunology and Dermatology	Transplantation	11	-8	115	-13	**126**	**-13**	**-13**
***Exelon/Exelon* Patch**	Neuroscience	Alzheimer's disease	26	-40	88	-6	**114**	**-16**	**-17**
Top 20 products total			**2 063**	**-8**	**4 103**	**6**	**6 166**	**-1**	**1**
Rest of portfolio			733	-3	1 374	-5	**2 107**	**-7**	**-4**
Total Division sales			**2 796**	**-6**	**5 477**	**3**	**8 273**	**-3**	**-1**

[1] Formerly named the Pharmaceuticals Division.
[2] Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology and Dermatology).
nm = not meaningful

Net sales of the top 20 Innovative Medicines[1] products in 2016 – Full year

			US		Rest of world		Total		
Brands	**Business Franchise**	**Indication**	**USD m**	**% change in constant currencies**	**USD m**	**% change in constant currencies**	**USD m**	**% change in USD**	**% change in constant currencies**
Gleevec/Glivec	Oncology	Chronic myeloid leukemia and GIST	1 214	-52	2 109	1	**3 323**	**-29**	**-28**
Gilenya	Neuroscience	Relapsing multiple sclerosis	1 683	12	1 426	15	**3 109**	**12**	**14**
Lucentis	Ophthalmology	Age-related macular degeneration			1 835	-8	**1 835**	**-11**	**-8**
Tasigna	Oncology	Chronic myeloid leukemia	722	9	1 017	10	**1 739**	**7**	**10**
Sandostatin	Oncology	Carcinoid tumors and Acromegaly	853	4	793	3	**1 646**	**1**	**3**
Afinitor/Votubia	Oncology	Breast cancer / TSC	775	-13	741	6	**1 516**	**-6**	**-5**
Galvus	Cardio-Metabolic	Diabetes			1 193	6	**1 193**	**5**	**6**
Cosentyx	Immunology and Dermatology	Psoriasis, ankylosing spondylitis and psoriatic arthritis	765	nm	363	nm	**1 128**	**nm**	**nm**
Diovan/Co–Diovan	Established Medicines	Hypertension	147	-42	926	-6	**1 073**	**-16**	**-13**
Exjade/Jadenu	Oncology	Chronic iron overload	447	22	509	-6	**956**	**4**	**6**
Exforge	Established Medicines	Hypertension	10	-85	916	-3	**926**	**-12**	**-8**
Xolair[2]	Respiratory	Asthma			835	15	**835**	**11**	**15**
Votrient	Oncology	Renal cell carcinoma	357	nm	372	nm	**729**	**nm**	**nm**
Tafinlar/Mekinist	Oncology	Melanoma	298	nm	374	nm	**672**	**nm**	**nm**
Promacta/Revolade	Oncology	Immune thrombocytopenic purpura	310	nm	325	nm	**635**	**nm**	**nm**
Travoprost Group	Ophthalmology	Reduction of elevated intraocular pressure	211	6	408	-5	**619**	**-2**	**-1**
Jakavi	Oncology	Myelofibrosis			581	45	**581**	**42**	**45**
Voltaren/Cataflam	Established Medicines	Inflammation/pain			525	1	**525**	**-6**	**1**
Neoral/Sandimmun(e)	Immunology and Dermatology	Transplantation	41	-13	474	-9	**515**	**-10**	**-9**
***Exelon/Exelon* Patch**	Neuroscience	Alzheimer's disease	90	-74	354	-8	**444**	**-39**	**-39**
Top 20 products total			**7 923**	**-8**	**16 076**	**7**	**23 999**	**0**	**2**
Rest of portfolio			2 974	-7	5 589	-4	**8 563**	**-8**	**-5**
Total Division sales			**10 897**	**-8**	**21 665**	**4**	**32 562**	**-2**	**0**

[1] Formerly named the Pharmaceuticals Division.
[2] Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology and Dermatology).
nm = not meaningful

Innovative Medicines[1] net sales by business franchise – Fourth quarter

	Q4 2016 USD m	Q4 2015 restated[2] USD m	% change USD	% change cc
Oncology				
Gleevec/Glivec	764	1 219	-37	-36
Tasigna	458	432	6	9
Subtotal Bcr-Abl portfolio	**1 222**	**1 651**	**-26**	**-24**
Sandostatin	408	413	-1	1
Afinitor/Votubia	391	382	2	3
Exjade/Jadenu	237	248	-4	-3
Votrient	192	176	9	10
Tafinlar/Mekinist	178	147	21	24
Promacta/Revolade	178	133	34	35
Jakavi	162	119	36	40
Zykadia	22	24	-8	-11
Other	217	226	-4	-1
Total Oncology business unit	**3 207**	**3 519**	**-9**	**-7**
Ophthalmology				
Lucentis	452	499	-9	-6
Travoprost Group	161	150	7	7
Systane Group	100	91	10	11
Topical Olopatadine Group	55	71	-23	-24
Other	551	580	-5	-4
Total Ophthalmology	**1 319**	**1 391**	**-5**	**-4**
Neuroscience				
Gilenya	810	742	9	11
Exelon/Exelon Patch	114	135	-16	-17
Other	30	30	0	0
Total Neuroscience	**954**	**907**	**5**	**6**
Immunology and Dermatology				
Cosentyx	391	121	nm	nm
Neoral/Sandimmun(e)	126	144	-13	-13
Zortress/Certican	104	89	17	18
Myfortic	91	115	-21	-13
Ilaris	75	63	19	20
Other	46	38	21	22
Subtotal Immunology and Dermatology excluding Everolimus stent drug	**833**	**570**	**46**	**49**
Everolimus stent drug	58	58	0	1
Total Immunology and Dermatology	**891**	**628**	**42**	**44**
Respiratory				
Ultibro Breezhaler	90	76	18	20
Seebri Breezhaler	38	37	3	9
Onbrez Breezhaler/Arcapta Neohaler	36	38	-5	-5
Subtotal COPD[3] portfolio	**164**	**151**	**9**	**11**
Xolair[4]	216	197	10	13
Other	8	9	-11	1
Total Respiratory	**388**	**357**	**9**	**12**
Cardio-Metabolic				
Galvus	298	294	1	0
Entresto	68	5	nm	nm
Other	4	0	nm	nm
Total Cardio-Metabolic	**370**	**299**	**24**	**23**
Established Medicines				
Diovan/Co-Diovan	257	292	-12	-8
Exforge	237	249	-5	-2
Voltaren/Cataflam	136	140	-3	9
Ritalin/Focalin	73	80	-9	-10
Other	441	636	-31	-26
Total Established Medicines	**1 144**	**1 397**	**-18**	**-14**
Total Pharmaceuticals business unit	**5 066**	**4 979**	**2**	**4**
Total Division net sales	**8 273**	**8 498**	**-3**	**-1**
Of which Growth products[5]	3 959	3 358	18	20
Of which rest of portfolio	4 314	5 140	-16	-14

[1] Formerly named the Pharmaceuticals Division.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.
[3] Chronic Obstructive Pulmonary Disease
[4] Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology and Dermatology).
[5] 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 until at least 2020 in key markets.
nm = not meaningful

Innovative Medicines[1] net sales by business franchise – Full year

	FY 2016 USD m	FY 2015 restated[2] USD m	% change USD	% change cc
Oncology				
Gleevec/Glivec	3 323	4 658	-29	-28
Tasigna	1 739	1 632	7	10
Subtotal Bcr-Abl portfolio	**5 062**	**6 290**	**-20**	**-18**
Sandostatin	1 646	1 630	1	3
Afinitor/Votubia	1 516	1 607	-6	-5
Exjade/Jadenu	956	917	4	6
Votrient	729	565	nm	nm
Tafinlar/Mekinist	672	453	nm	nm
Promacta/Revolade	635	402	nm	nm
Jakavi	581	410	42	45
Zykadia	91	79	15	14
Other	902	951	-5	-3
Total Oncology business unit	**12 790**	**13 304**	**-4**	**-2**
Ophthalmology				
Lucentis	1 835	2 060	-11	-8
Travoprost Group	619	631	-2	-1
Systane Group	377	380	-1	3
Topical Olopatadine Group	335	457	-27	-27
Other	2 297	2 395	-4	-2
Total Ophthalmology	**5 463**	**5 923**	**-8**	**-6**
Neuroscience				
Gilenya	3 109	2 776	12	14
Exelon/Exelon Patch	444	728	-39	-39
Other	124	141	-12	-12
Total Neuroscience	**3 677**	**3 645**	**1**	**2**
Immunology and Dermatology				
Cosentyx	1 128	261	nm	nm
Neoral/Sandimmun(e)	515	570	-10	-9
Zortress/Certican	398	335	19	22
Myfortic	383	441	-13	-6
Ilaris	283	236	20	22
Other	172	160	8	9
Subtotal Immunology and Dermatology excluding Everolimus stent drug	**2 879**	**2 003**	**44**	**47**
Everolimus stent drug	136	134	1	1
Total Immunology and Dermatology	**3 015**	**2 137**	**41**	**44**
Respiratory				
Ultibro Breezhaler	363	260	40	38
Seebri Breezhaler	149	150	-1	2
Onbrez Breezhaler/Arcapta Neohaler	143	166	-14	-8
Subtotal COPD[3] portfolio	**655**	**576**	**14**	**16**
Xolair[4]	835	755	11	15
Other	31	37	-16	-6
Total Respiratory	**1 521**	**1 368**	**11**	**15**
Cardio-Metabolic				
Galvus	1 193	1 140	5	6
Entresto	170	21	nm	nm
Other	14	0	nm	nm
Total Cardio-Metabolic	**1 377**	**1 161**	**19**	**20**
Established Medicines				
Diovan/Co-Diovan	1 073	1 284	-16	-13
Exforge	926	1 047	-12	-8
Voltaren/Cataflam	525	558	-6	1
Ritalin/Focalin	282	365	-23	-21
Other	1 913	2 553	-25	-21
Total Established Medicines	**4 719**	**5 807**	**-19**	**-15**
Total Pharmaceuticals business unit	**19 772**	**20 041**	**-1**	**1**
Total Division net sales	**32 562**	**33 345**	**-2**	**0**
Of which Growth products[5]	14 805	12 210	21	24
Of which rest of portfolio	17 757	21 135	-16	-14

[1] Formerly named the Pharmaceuticals Division.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.
[3] Chronic Obstructive Pulmonary Disease
[4] Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology and Dermatology).
[5] 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 until at least 2020 in key markets.
nm = not meaningful

Net sales by region[1] – Fourth quarter

	Q4 2016	Q4 2015 restated	% change		Q4 2016	Q4 2015 restated
	USD m	USD m	USD	cc	**% of total**	% of total
Innovative Medicines[2, 3]						
Europe	2 832	2 776	2	5	34	33
US	2 796	2 989	-6	-6	34	35
Asia/Africa/Australasia	1 960	2 011	-3	-3	24	24
Canada and Latin America	685	722	-5	7	8	8
Total	**8 273**	**8 498**	**-3**	**-1**	**100**	**100**
Of which in Established Markets	6 185	6 366	-3	-3	75	75
Of which in Emerging Growth Markets	2 088	2 132	-2	6	25	25
Sandoz[2]						
Europe	1 113	1 070	4	6	43	42
US	961	938	2	3	37	37
Asia/Africa/Australasia	364	389	-6	-4	14	15
Canada and Latin America	167	157	6	5	6	6
Total	**2 605**	**2 554**	**2**	**3**	**100**	**100**
Of which in Established Markets	1 941	1 892	3	3	75	74
Of which in Emerging Growth Markets	664	662	0	3	25	26
Alcon[2]						
Europe	378	388	-3	1	26	26
US	623	619	1	1	43	42
Asia/Africa/Australasia	332	332	0	-5	23	23
Canada and Latin America	111	129	-14	0	8	9
Total	**1 444**	**1 468**	**-2**	**0**	**100**	**100**
Of which in Established Markets	1 151	1 139	1	1	80	78
Of which in Emerging Growth Markets	293	329	-11	-5	20	22
Continuing operations						
Europe	4 323	4 234	2	5	35	34
US	4 380	4 546	-4	-4	36	36
Asia/Africa/Australasia	2 656	2 732	-3	-3	22	22
Canada and Latin America	963	1 008	-4	6	7	8
Total continuing operations	**12 322**	**12 520**	**-2**	**0**	**100**	**100**
Of which in Established Markets	9 277	9 397	-1	-1	75	75
Of which in Emerging Growth Markets	3 045	3 123	-2	4	25	25

[1] Net sales from operations by location of third party customer. Emerging Growth Markets comprise all markets other than the Established Markets of the US, Canada, Western Europe, Japan, Australia and New Zealand.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.
[3] Formerly named the Pharmaceuticals Division.

Net sales by region[1] – Full year

	FY 2016	FY 2015 restated	% change		FY 2016	FY 2015 restated
	USD m	USD m	USD	cc	**% of total**	% of total
Innovative Medicines[2, 3]						
Europe	11 217	10 671	5	7	34	32
US	10 897	11 850	-8	-8	33	36
Asia/Africa/Australasia	7 696	7 662	0	0	24	23
Canada and Latin America	2 752	3 162	-13	5	9	9
Total	**32 562**	**33 345**	**-2**	**0**	**100**	**100**
Of which in Established Markets	24 416	24 936	-2	-2	75	75
Of which in Emerging Growth Markets	8 146	8 409	-3	6	25	25
Sandoz[2]						
Europe	4 354	4 260	2	4	43	42
US	3 708	3 666	1	1	37	36
Asia/Africa/Australasia	1 418	1 490	-5	-3	14	15
Canada and Latin America	664	654	2	9	6	7
Total	**10 144**	**10 070**	**1**	**2**	**100**	**100**
Of which in Established Markets	7 580	7 415	2	3	75	74
Of which in Emerging Growth Markets	2 564	2 655	-3	2	25	26
Alcon[2]						
Europe	1 508	1 541	-2	1	26	26
US	2 512	2 563	-2	-2	43	43
Asia/Africa/Australasia	1 327	1 376	-4	-6	23	23
Canada and Latin America	465	519	-10	5	8	8
Total	**5 812**	**5 999**	**-3**	**-2**	**100**	**100**
Of which in Established Markets	4 630	4 659	-1	-1	80	78
Of which in Emerging Growth Markets	1 182	1 340	-12	-4	20	22
Continuing operations						
Europe	17 079	16 472	4	6	35	33
US	17 117	18 079	-5	-5	35	37
Asia/Africa/Australasia	10 441	10 528	-1	-1	22	21
Canada and Latin America	3 881	4 335	-10	5	8	9
Total continuing operations	**48 518**	**49 414**	**-2**	**0**	**100**	**100**
Of which in Established Markets	36 626	37 010	-1	-1	75	75
Of which in Emerging Growth Markets	11 892	12 404	-4	4	25	25

[1] Net sales from operations by location of third party customer. Emerging Growth Markets comprise all markets other than the Established Markets of the US, Canada, Western Europe, Japan, Australia and New Zealand.
[2] Restated to reflect the new divisional structures and product transfers between divisions, announced on January 27, 2016.
[3] Formerly named the Pharmaceuticals Division.

Principal currency translation rates

Fourth quarter

	Average rates Q4 2016	Average rates Q4 2015	**Period-end rates Dec 31, 2016**	Period-end rates Dec 31, 2015
1 CHF	**0.999**	1.010	**0.978**	1.011
1 CNY	**0.146**	0.156	**0.144**	0.154
1 EUR	**1.079**	1.095	**1.051**	1.093
1 GBP	**1.242**	1.517	**1.227**	1.483
100 JPY	**0.916**	0.824	**0.854**	0.831
100 RUB	**1.588**	1.516	**1.648**	1.362

Full year

	Average rates FY 2016	Average rates FY 2015	**Period-end rates Dec 31, 2016**	Period-end rates Dec 31, 2015
1 CHF	**1.015**	1.040	**0.978**	1.011
1 CNY	**0.151**	0.159	**0.144**	0.154
1 EUR	**1.107**	1.110	**1.051**	1.093
1 GBP	**1.355**	1.529	**1.227**	1.483
100 JPY	**0.922**	0.826	**0.854**	0.831
100 RUB	**1.498**	1.649	**1.648**	1.362

Income from associated companies

(USD millions)	**Q4 2016**	Q4 2015	**FY 2016**	FY 2015
Share of estimated Roche reported results	*156*	*122*	*678*	*650*
Prior-year adjustment			*-68*	*-157*
Amortization of additional intangible assets recognized by Novartis on initial accounting for the equity interest	*-36*	*-37*	*-146*	*-150*
Net income effect from Roche Holding AG	120	85	464	343
Share of estimated GSK Consumer Healthcare Holdings Ltd. reported results	*39*	*-14*	*268*	*-17*
Prior-year adjustment			*-22*	
Amortization of additional intangible assets recognized by Novartis on initial accounting for the equity interest	*-3*	*-62*	*-12*	*-62*
Net income effect from GlaxoSmithKline Consumer Healthcare Holdings Ltd.	36	-76	234	-79
Others		1	5	2
Income from associated companies related to continuing operations	**156**	**10**	**703**	**266**

Core income from associated companies

(USD millions)	**Q4 2016**	Q4 2015	**FY 2016**	FY 2015
Income from associated companies related to continuing operations	**156**	**10**	**703**	**266**
Share of estimated Roche core adjustments	73	104	260	287
Roche prior year adjustment			36	136
Share of estimated GSK Consumer Healthcare Holdings Ltd. core adjustments	51	129	120	292
GSK Consumer Healthcare Holdings Ltd. prior year adjustment			15	
Core income from associated companies related to continuing operations	**280**	**243**	**1 134**	**981**

Disclaimer

These materials contain forward-looking statements that can be identified by words such as “ongoing,” “momentum,” “to further strengthen,” “pipeline,” “Priority Review,” “option,” “to maximize,” “under consideration,” “being considered,” “to take place,” “initiating,” “confidence,” “prospects,” “proposing,” “reviewing,” “considering,” “subject to,” “exploring,” “confidence,” “aims,” “toward,” “laying foundation for,” “proposed,” “outlook,” “expected,” “launches,” “to accelerate,” “continued,” “launch trajectory,” “launch,” “well placed,” “recommended,” “Fast Track,” “being co-developed,” “recommending,” “growing,” “will,” “plan,” “initiated,” “roadmap,” “time horizon,” “platform,” “designed to,” “remains,” “expect,” “estimated,” “contingent,” “underway,” “filed,” “may,” “potential,” “submitted,” “should,” “can,” “on track,” “planned,” or similar terms, or by express or implied discussions regarding potential new products, potential new indications for existing products, or regarding potential future revenues from any such products; potential shareholder returns or credit ratings; or regarding the potential outcome of the announced review of options being undertaken to maximize shareholder value of the Alcon Division; or regarding the potential financial or other impact on Novartis or any of our divisions 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; or regarding the potential impact of the share buyback plan; or regarding potential future sales or earnings of the Novartis Group or any of its divisions; or by discussions of strategy, plans, expectations or intentions. You should not place undue reliance on these statements. Such forward looking statements are based on the current beliefs and expectations of management regarding future events, and are subject to significant known and unknown risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those set forth in the forward looking statements. There can be no guarantee that any new products will be approved for sale in any market, or that any new indications will be approved for any existing products in any market, or that any approvals which are obtained will be obtained at any particular time, or that any such products will achieve any particular revenue levels. Nor can there be any guarantee that the review of options being undertaken to maximize shareholder value of the Alcon Division will reach any particular results, or at any particular time. 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. 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 or financial results. In particular, management’s expectations could be affected by, among other things: regulatory actions or delays or government regulation generally; the potential that the strategic benefits, synergies or opportunities expected from 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 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 the research and development of new healthcare products, including 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 will continue this year; safety, quality or manufacturing issues; global trends toward health care cost containment, including ongoing pricing and reimbursement pressures, such as from increased publicity on pharmaceuticals pricing, including in certain large markets; 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; uncertainties regarding future demand for our products; and uncertainties regarding potential significant breaches of data security or data privacy, 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. Novartis is providing the information in these materials as of this date and does not undertake any obligation to update any forward-looking statements as a result of new information, future events or otherwise.

About Novartis
Novartis provides innovative healthcare solutions that address the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, eye care and cost-saving generic pharmaceuticals. Novartis is the only global company with leading positions in these areas. In 2016, the Group achieved net sales of USD 48.5 billion, while R&D throughout the Group amounted to approximately USD 9.0 billion (USD 8.4 billion excluding impairment and amortization charges). Novartis Group companies employ approximately 118,000 full-time-equivalent associates. Novartis products are sold in approximately 155 countries around the world. For more information, please visit http://www.novartis.com.

Novartis issued its 2016 Annual Report today, and it is available at www.novartis.com. Novartis will also file its 2016 Annual Report on Form 20-F with the US Securities and Exchange Commission today, and will post this document on www.novartis.com. Novartis shareholders may receive a hard copy of either of these documents, each of which contains our complete audited financial statements, free of charge, upon request. Novartis also issued its 2016 Corporate Responsibility Performance Report today, and it is available at www.novartis.com.

Important dates

February 28, 2017	Annual General Meeting
April 25, 2017	First quarter results 2017
May 30-31, 2017	Meet Novartis Management investor event in Boston, MA
July 18, 2017	Second quarter results 2017
October 24, 2017	Third quarter results 2017