Novartis International AG
Novartis Global Communications
CH-4002 Basel
Switzerland

http://www.novartis.com

Novartis Q1 2017 Condensed Interim Financial Report – Supplementary Data

GROUP AND DIVISIONAL OPERATING PERFORMANCE

Key figures	Q1 2017	Q1 2016	% change	
	USD m	USD m	USD	cc [1]
Net sales to third parties	**11 539**	**11 600**	*-1*	*2*
Divisional operating income	2 021	2 557	*-21*	*-18*
Corporate income & expense, net	-99	-106	*7*	*-6*
Operating income	**1 922**	**2 451**	***-22***	***-19***
As % of net sales	*16.7%*	*21.1%*		
Income from associated companies	215	127	*69*	*69*
Interest expense	-180	-185	*3*	*1*
Other financial income and expense	-10	-41	*76*	*62*
Taxes	-282	-341	*17*	*15*
Net income	**1 665**	**2 011**	***-17***	***-15***
Basic earnings per share (USD)	**0.70**	**0.85**	***-18***	***-15***
Cash flows from operating activities	**2 045**	**1 542**	***33***	
Free cash flow	***1 665***	***1 362***	***22***	
Core [1]				
Core operating income	**3 010**	**3 261**	***-8***	***-5***
As % of net sales	*26.1%*	*28.1%*		
Core net income	**2 690**	**2 788**	***-4***	***-1***
Basic core earnings per share (USD)	**1.13**	**1.17**	***-3***	***-1***

First quarter

Net sales

Net sales were USD 11.5 billion (-1%, +2% cc) in the first quarter, as volume growth of 7 percentage points was offset by the negative impact of generic competition (-3 percentage points) and pricing (-2 percentage points). All Divisions reported growth in constant currencies.

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 99 million compared to USD 106 million in the prior-year quarter.

Operating income

Operating income was USD 1.9 billion (-22%, -19% cc). Core adjustments amounted to USD 1.1 billion (2016: USD 0.8 billion), including a net charge of USD 0.2 billion related to the discontinuation of RLX030 development.

Core operating income was USD 3.0 billion (-8%, -5% cc). Core operating income margin in constant currencies decreased 1.8 percentage points, mainly due to *Gleevec/Glivec* generic impact and investments behind new launches and the Alcon growth plan. Currency had a negative impact of 0.2 percentage points, resulting in a net decrease of 2.0 percentage points in US dollar terms to 26.1% of net sales.

Income from associated companies

Income from associated companies increased to USD 215 million from USD 127 million in the prior-year mainly due to higher income from the investment in GSK Consumer Healthcare Holdings. The share of income from GSK Consumer Healthcare Holdings increased to USD 143 million from USD 50

[1] Constant currencies (cc), core results and free cash flow are non-IFRS measures. An explanation of non-IFRS measures can be found on page 36. Unless otherwise noted, all growth rates in this document refer to same period in prior year.

million in the first quarter of 2016. The increase was due to a higher estimated income from GSK Consumer Healthcare Holdings for the first quarter of 2017 of USD 96 million compared to USD 50 million in 2016, as well as the recognition of a prior year true up of USD 47 million based on the actual audited results for 2016.

Core income from associated companies increased to USD 352 million in the first quarter of 2017 from USD 253 million in the prior-year quarter. The share of income from GSK Consumer Healthcare Holdings increased to USD 144 million from USD 88 million in the first quarter of 2016. The increase was mainly driven by higher estimated reported results for the period. The core income contribution from Roche Holding AG increased to USD 207 million from USD 163 million in the first quarter of 2016. The first quarter of 2016 was negatively impacted by a true up of 2015.

Interest expense and other financial income/expense
Interest expense was USD 180 million, broadly in line with USD 185 million in the prior-year quarter.

Other financial income and expense amounted to an expense of USD 10 million in the first quarter of 2017 compared to an expense of USD 41 million in the prior-year quarter, mainly due to a lower currency result of USD 27 million in the first quarter of 2017 compared to USD 59 million in the prior-year quarter.

Taxes
The tax rate was 14.5% in line with the prior-year quarter. The core tax rate was 15.2% in line with the prior-year quarter.

Net income and EPS
Net income was USD 1.7 billion (-17%, -15% cc), declining less than operating income mainly due to higher income from GSK Consumer Healthcare Holdings, including a favorable true up based on the actual audited results for 2016.

EPS was USD 0.70 (-18%, -15% cc), broadly in line with net income.

Core net income was USD 2.7 billion (-4%, -1% cc), declining less than core operating income due to higher income from associated companies.

Core EPS was USD 1.13 (-3%, -1% cc), broadly in line with core net income.

Innovative Medicines

	Q1 2017 USD m	Q1 2016 USD m	% change USD	cc
Net sales	**7 692**	**7 729**	**0**	**2**
Operating income	**1 721**	**2 180**	**-21**	**-17**
As % of net sales	22.4	28.2		
Core operating income	**2 426**	**2 602**	**-7**	**-3**
As % of net sales	31.5	33.7		

First quarter

Net sales
Net sales were USD 7.7 billion (0%, +2% cc) in the first quarter. Volume contributed 7 percentage points to sales growth. Generic competition had a negative impact of 4 percentage points and pricing had a negative impact of 1 percentage points, both largely due to *Gleevec/Glivec* genericization in the US and Europe.

Regionally, Europe sales (USD 2.6 billion, +1% cc) were mainly driven by *Cosentyx*, *Jakavi, Tafinlar + Mekinist* and *Entresto*, partially offset by *Gleevec/Glivec* genericization. US sales (USD 2.5 billion, 0% cc) were stable as *Cosentyx* and *Entresto*, offset the generic competition, largely for *Gleevec/Glivec.* Japan sales (USD 0.6 billion, -5% cc) declined, mainly due to the divestment of 14 Established Medicines brands in March 2016 and generic impact for *Diovan*. Emerging Growth Markets sales increased 8% (cc) to USD 2.0 billion.

Novartis Pharmaceuticals BU sales were USD 4.8 billion (+6% cc). In Ophthalmology (USD 1.3 billion, -2% cc), while *Lucentis* (USD 445 million, +3% cc) grew, the rest of the Ophthalmology portfolio declined mainly due to generic competition. Immunology and Dermatology (USD 844 million, +41% cc) sales increased, driven by continued uptake of *Cosentyx* (USD 410 million, +136% cc) in US and Europe. In Neuroscience (USD 746 million, +4% cc), *Gilenya* (USD 722 million, +5% cc) continued to grow. Respiratory (USD 364 million, +10% cc) performance was driven by sustained growth of *Xolair* (USD 202 million, +11% cc) and growth of the COPD[1] portfolio (USD 155 million, +9% cc). In Cardio-Metabolic, *Entresto* (USD 84 million) grew steadily, benefiting from the continued improvement in access, including new reimbursement in Europe, and expansion of the US sales force.

Novartis Oncology BU sales were USD 2.9 billion (-4% cc; +7% cc excluding *Gleevec/Glivec*). The sales decline was driven by *Gleevec/Glivec* (USD 544 million, -34% cc) generic impact in the US and Europe, partially offset by *Promacta/Revolade* (USD 175 million, +35% cc) , *Jakavi* (USD 162 million, +34% cc), *Tafinlar + Mekinist* (USD 187 million, +27% cc) and *Tasigna* (USD 411 million, +9% cc).

Operating income
Operating income was USD 1.7 billion (-21%, -17% cc), down mainly due to a net charge related to the discontinuation of RLX030 development. Core adjustments totaled USD 705 million, including USD 533 million for amortization of intangible assets, USD 499 million total impairment charges (mainly RLX030), USD 220 million other income (net), as well as USD 181 million divestment gains (mainly from the divestment of *Odomzo*). Prior-year core adjustments were USD 422 million.

Core operating income was USD 2.4 billion (-7%, -3% cc), down largely due to *Gleevec/Glivec* generic impact and launch investments. Core operating income margin in constant currencies decreased by 1.7 percentage points; currency had a negative impact of 0.5 percentage points, resulting in a net decrease of 2.2 percentage points to 31.5% of net sales.

Core gross margin as a percentage of net sales increased by 0.8 percentage points (cc). Core R&D expenses decreased by 0.5 percentage points (cc), mainly reflecting continued productivity and resource allocation from the creation of the Global Drug Development Unit. Core SG&A expenses increased by 2.0 percentage points (cc), largely due to launch investments for *Entresto*, *Cosentyx* and *Kisqali*. Core Other Income and Expense, net decreased the margin by 1.0 percentage points (cc).

[1] 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 of previous year.

Innovative Medicines product review

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

ONCOLOGY BUSINESS UNIT

	Q1 2017 USD m	Q1 2016 USD m	% change USD	cc
Gleevec/Glivec	544	834	-35	-34
Tasigna	411	382	8	9
Sandostatin	385	401	-4	-3
Afinitor/Votubia	344	367	-6	-4
Exjade/Jadenu	247	223	11	12
Tafinlar + Mekinist[1]	187	150	25	27
Votrient	178	166	7	8
Promacta/Revolade	175	131	34	35
Jakavi	162	124	31	34
Other	223	251	-11	-9
Total Oncology business unit	**2 856**	**3 029**	**-6**	**-4**

[1]Majority of sales for *Mekinist* and *Tafinlar* are combination, but both can be used as a monotherapy

Gleevec/Glivec (USD 544 million, -34% cc) declined driven by increased pressure from generic imatinib in most major markets. *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.

Tasigna (USD 411 million, +9% cc) showed solid growth in the first quarter driven by the US and Emerging Growth Markets. *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*.

Sandostatin (USD 385 million, -3% cc) declined in the first quarter due to increased competitive pressure. *Sandostatin* is a somatostatin analogue available in immediate and long-acting release (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.

Afinitor/Votubia (USD 344 million, -4% cc) declined in the first quarter, driven by pressure from competition in the advanced breast and renal cell cancer markets in the US and now Europe. Growth in the neuroendocrine tumors (NET) of gastrointestinal (GI) or lung origin and tuberous sclerosis complex (TSC) seizures indications was not sufficient to compensate for the other two indications. *Afinitor* is approved in combination with exemestane for the treatment of patients with hormone receptor positive, human epidermal growth factor receptor-2 negative (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 TSC that requires therapeutic intervention but cannot be curatively resected and the treatment of patients with renal angiomyolipoma associated with TSC who do not require immediate surgery. In January the European Commission approved *Votubia* as an adjunctive treatment for patients two years and older whose refractory partial-onset seizures, with or without secondary generalization, are associated with TSC, making it the first adjunctive treatment approved for this patient population. 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.

Exjade/Jadenu (USD 247 million, +12% cc) global sales grew, driven by continued uptake of *Jadenu* in most markets and tenders secured in Emerging Growth Markets. *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, Switzerland and other markets for the same indications as *Exjade*. In the EU, the new oral formulation is approved as *Exjade* Film-Coated Tablet (FCT). Regulatory applications for FCT have been submitted in several 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 Sprinkle* in the US, *Jadenu* in Japan and *Exjade* in the EU.

Tafinlar + Mekinist (USD 187 million, +27% 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 March, the EMA approved *Tafinlar* in combination with *Mekinist* to treat patients with advanced or metastatic non-small cell lung cancer (NSCLC) whose tumors express the BRAF V600 mutation. In addition, both *Tafinlar* monotherapy and the *Tafinlar* + *Mekinist* combination have FDA Breakthrough Therapy designation in BRAF V600E mutant NSCLC after at least one prior line of platinum containing chemotherapy.

Votrient (USD 178 million, +8% cc) grew in most 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).

Promacta/Revolade (USD 175 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, +34% cc) experienced continued strong growth across all markets driven by increased patients in the myelofibrosis (MF) indication and the launch of the second-line polycythemia vera (PV) indication. *Jakavi*, an oral inhibitor of the JAK 1 and JAK 2 tyrosine kinases, 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®.

Kisqali (ribociclib), previously known as LEE011, was approved and launched in March 2017 in combination with any approved aromatase inhibitor as initial endocrine-based therapy for the treatment of postmenopausal women with hormone receptor positive, (HR+/HER2-) advanced or metastatic breast cancer. Additionally, a regulatory application for *Kisqali* is currently under review in Europe and additional filings are underway with other health authorities worldwide.

PHARMACEUTICAL BUSINESS UNIT

OPHTHALMOLOGY

	Q1 2017 USD m	Q1 2016 USD m	% change USD	% change cc
Lucentis	445	452	-2	3
Travoprost Group	148	151	-2	-1
Topical Olopatadine Group	100	136	-26	-26
Systane Group	88	89	-1	-1
Other	540	542	0	1
Total Ophthalmology	**1 321**	**1 370**	**-4**	**-2**

Lucentis (USD 445 million, +3% cc) sales grew driven by Europe and Emerging Growth Markets. In 2016, the EC approved *Lucentis* to treat patients with visual impairment due to rare conditions causing choroidal neovascularization (CNV). This new indication is now approved in 13 countries in addition to the EU. Further submissions have been filed in 18 countries, including Switzerland. *Lucentis* is 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 31 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 148 million, -1% cc), sales declined slightly. Travaprost Group includes ***Travatan***, ***TravatanZ*** and ***DuoTrav***, which are indicated for the reduction of elevated intraocular pressure (IOP) in patients with open-angle glaucoma or who have ocular hypertension. Single agent travoprost products (*Travatan*, *TravatanZ*, *Travatan* BAK-Free and *Izba*) are prescribed as first-line agents. *DuoTrav* (travoprost and timolol) is a fixed-dose combination solution approved as a second-line treatment.

Topical Olopatadine Group (USD 100 million, -26% cc), saw sales decline primarily due to generic competition. *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, Canada and China.

Systane **Group** (USD 88 million, -1% cc) sales declined slightly. 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 *Systane Ultra, Systane Balance, and Systane Hydration;* which consists of treatments for daily and nighttime relief, as well as products for everyday lid hygiene, and for discomfort associated with contact lens wear.

IMMUNOLOGY and DERMATOLOGY

	Q1 2017 USD m	Q1 2016 USD m	% change USD	% change cc
Cosentyx	410	176	133	136
Neoral/Sandimmun(e)	115	123	-7	-5
Zortress/Certican	91	91	0	5
Myfortic	82	104	-21	-11
Ilaris	82	62	32	33
Other	64	64	0	2
Total Immunology and Dermatology	**844**	**620**	**36**	**41**

Xolair sales for all indications are reported in the Respiratory franchise

Cosentyx (USD 410 million, +136% cc) showed strong growth across all indications. Launched in February 2015, more than 80,000 patients have been treated with *Cosentyx* in a post-marketing setting to date. *Cosentyx* is the only fully human monoclonal antibody that selectively neutralizes 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 75 countries to date, including the US, EU, Switzerland, Canada and Australia. *Cosentyx* is also approved in around 70 countries for the treatment of adults with AS and PsA, including the US, EU, Canada and Australia. In Japan, *Cosentyx* is approved for the treatment of moderate-to-severe plaque PsO, and pustular PsO, as well as for PsA.

Xolair continued its strong growth globally and is currently approved in over 80 countries, including the EU countries, Japan 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 most 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 115 million, -5% 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. Sales are declining due to generic competition and mandatory price reductions, mainly in 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 91 million, +5% cc), available in more than 90 countries to prevent organ rejection in adult heart and kidney transplant patients, continued to show 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 82 million, -11% 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 82 million, +33% cc) continued to grow strongly 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 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 European Commission approved Ilaris for the same three Periodic Fever Syndromes in February 2017.

NEUROSCIENCE

	Q1 2017 USD m	Q1 2016 USD m	% change USD	cc
Gilenya	722	698	3	5
Other	24	33	-27	-26
Total Neuroscience	**746**	**731**	**2**	**4**

Gilenya (USD 722 million, +5% cc), the first once-daily oral therapy to treat relapsing forms of multiple sclerosis (RMS), exhibited continued growth driven by volume increase. *Gilenya* is approved in over 80 countries. *Gilenya* has been used to treat more than 204,000 patients in both clinical trials and post-marketing setting, with the total patient exposure now at more than 424,000 patient years. *Gilenya* is licensed from Mitsubishi Tanabe Pharma.

RESPIRATORY

	Q1 2017 USD m	Q1 2016 USD m	% change USD	% change cc
Ultibro Breezhaler	91	78	17	19
Seebri Breezhaler	36	35	3	6
Onbrez Breezhaler/Arcapta Neohaler	28	33	-15	-11
COPD portfolio	**155**	**146**	**6**	**9**
Xolair[1]	202	192	5	11
Other	7	8	-13	6
Total Respiratory	**364**	**346**	**5**	**10**

[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 9% (cc) to USD 155 million. All three products in the COPD portfolio are delivered via the low-resistance *Breezhaler/Neohaler* inhalation device. In the US, 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 91 million, +19% 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 36 million, +6% 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 28 million, -11% 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 202 million, +11% cc) currently approved in more than 90 countries as a treatment for moderate-to-severe or severe persistent allergic asthma, continued to grow strongly. In July 2016, 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

	Q1 2017 USD m	Q1 2016 USD m	% change USD	% change cc
Entresto	84	17	nm	nm
Other	4	3	33	31
Total Cardio-Metabolic	**88**	**20**	**nm**	**nm**

nm = not meaningful

Entresto (USD 84 million) (sacubitril/valsartan) had a solid first quarter, benefitting from the continued access improvements and effects of increased investment in the US as well as additional launches in Europe. *Entresto* is now approved in 78 countries and launched in more than 35 countries to date, and has been used to treat more than 200,000 patients with heart failure with reduced ejection fraction worldwide since July 2015. *Entresto*, an 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.

ESTABLISHED MEDICINES

	Q1 2017 USD m	Q1 2016 USD m	% change USD	cc
Galvus	286	283	1	4
Diovan/Co-Diovan	242	272	-11	-8
Exforge	228	221	3	8
Voltaren/Cataflam	119	124	-4	10
Exelon/Exelon Patch	97	116	-16	-16
Ritalin/Focalin	57	70	-19	-19
Other	444	527	-16	-13
Total Established Medicines	**1 473**	**1 613**	**-9**	**-5**

***Galvus* Group** (USD 286 million, +4% cc) showed continued growth. 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.

***Diovan* Group** (USD 242 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 and Japan. *Diovan* group is still growing in Emerging Growth Markets.

***Exforge* Group** (USD 228 million, +8% cc), which includes *Exforge* and *Exforge HCT*, grew at single digit despite generic competition in the US and Japan. *Exforge* grew in Europe and in many Emerging Growth Markets including China. Generic competition for *Exforge* began in some European countries in 2017. *Exforge HCT* is growing in almost all regions.

Voltaren/Cataflam (USD 119 million, +10% cc) is a 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*.

***Exelon*/*Exelon* Patch** (USD 97 million, -16% 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.

Ritalin/Focalin (USD 57 million, -19% 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. *Ritalin* and *Focalin* are subject to generic competition in the US.

Sandoz

	Q1 2017	Q1 2016	% change	
	USD m	USD m	USD m	cc
Net sales	**2,430**	**2,445**	**-1**	**1**
Operating income	**343**	**346**	**-1**	**-2**
As % of net sales	14.1	14.2		
Core operating income	**460**	**485**	**-5**	**-6**
As % of net sales	18.9	19.8		

First quarter

Net sales
Sandoz net sales were USD 2.4 billion (-1%, +1% cc) in the first quarter, as volume growth of 9 percentage points was partially offset by 8 percentage points of price erosion. Performance in the first quarter was impacted by increased pricing pressure in the US.

Sales in the US were USD 864 million (flat in cc), as the continued strong performance of Biopharmaceuticals (+28% cc) and higher contract manufacturing sales were offset by increased pricing pressure, particularly in the specialty generics segment and additional government mandated rebates. Sales in Europe were USD 1'069 million (+2% cc), largely driven by strong growth in Italy and a strong flu season in Central Europe. Sales in Asia / Africa / Australasia were USD 320 million (-5% cc) due to a slow-down in China and lower contract manufacturing and private label sales, partly offset by growth in Australia and Japan.

Sales in Emerging Growth Markets were USD 629 million (-1% cc) as growth in Latin America, Central Europe and Turkey was offset by a slow-down in China and Russia.

Global sales of Biopharmaceuticals (including biosimilars, biopharmaceutical contract manufacturing and *Glatopa*) grew 30% (cc) to USD 274 million driven by strong performance of *Zarxio* (filgrastim) and *Glatopa* 20mg (glatiramer acetate) in the US. Retail Generics sales were USD 2.0 billion (-2% cc), as the decline in US Retail sales (-7% cc) more than offset growth in the rest of the world (+1%). Total Anti-Infectives franchise sales were USD 348 million (flat in cc). Growth in finished dosage Anti-Infectives forms sold under the Sandoz name (USD 230 million, +5% cc), was offset by a decline in Anti-Infectives sold to third parties for sale under their own name (USD 119 million -9% cc), reflecting the discontinuation of low-margin products.

Operating income
Operating income was USD 343 million (-1%, -2% cc). Core adjustments amounted to USD 117 million, mainly due to USD 111 million of amortization of intangible assets and USD 6 million of net restructuring charges. Prior-year core adjustments were USD 139 million, including USD 116 million for amortization of intangible assets and USD 13 million of net restructuring charges.

Core operating income was USD 460 million (-5%, -6% cc). Core operating income margin in constant currencies decreased by 1.3 percentage points, mainly due to higher M&S investment, including biosimilars, and higher Other Expense. Currency had a positive impact of 0.4 percentage points, resulting in a net decrease of 0.9 percentage points to 18.9% of net sales.

Core gross margin as a percentage of net sales increased by 0.3 percentage points (cc), driven by a favorable sales mix and ongoing productivity improvements, which more than offset the impact of price erosion and additional government mandated rebates in the US. Core R&D expenses decreased by 0.3 percentage points (cc). Core SG&A expenses increased by 0.8 percentage points (cc). Core Other Income and Expense, net decreased the margin by 1.1 percentage points (cc), largely due to higher legal expenses in the quarter and non-recurring income in the prior-year quarter.

Alcon

	Q1 2017	Q1 2016	% change	
	USD m	USD m	USD	cc
Net sales	**1 417**	**1 426**	**-1**	**1**
Operating loss/income	**-43**	**31**	**nm**	**nm**
As % of net sales	-3.0	2.2		
Core operating income	**187**	**243**	**-23**	**-18**
As % of net sales	13.2	17.0		

First quarter

Net sales
Alcon net sales were USD 1.4 billion (-1%, +1% cc) in the first quarter. Vision Care sales (+4% cc) grew, driven by continued strong performance of the daily contact lens portfolio, including double-digit growth of *Dailies Total1*. Surgical sales (-1% cc) were down, mainly due to competitive pressures in IOLs.

Regionally, Europe, Middle East and Africa (+4% cc) grew, driven by Vision Care. Sales in North America were flat. Sales in Asia (-2% cc) and Japan (-1% cc) declined. Emerging Growth Markets (+1% cc) grew.

Operating loss/income
Operating loss was USD 43 million, compared to an income of USD 31 million in the prior-year quarter, impacted by continued investments in M&S and R&D behind the growth plan. Core adjustments amounted to USD 230 million, primarily due to amortization of intangible assets, restructuring and other net costs. Prior-year core adjustments were USD 212 million due to amortization and other net costs.

Core operating income was USD 187 million (-23%, -18% cc). Core operating income margin in constant currencies decreased by 3.1 percentage points; currency had a negative impact of 0.7 percentage points, resulting in a net decrease of 3.8 percentage points to 13.2% of net sales.

Core gross margin as a percentage of net sales decreased 0.4 percentage points (cc) versus the prior–year quarter. Core R&D expenses increased by 0.4 percentage points (cc), driven by pipeline investments, mainly in IOLs. Core SG&A increased 2.0 percentage points (cc) behind investments to drive growth, including advertising and promotion for key Vision Care brands. Core Other Income and Expense, net decreased the margin by 0.3 percentage points (cc).

Alcon product review

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

SURGICAL

	Q1 2017 USD m	Q1 2016 USD m	% change USD	cc
Cataract products	640	676	-5	-3
Consumables	*339*	*333*	*2*	*3*
IOLs	*228*	*261*	*-13*	*-9*
Equipment	*73*	*82*	*-11*	*-9*
Vitreoretinal products	159	142	12	12
Refractive/Other	47	52	-10	-10
Total Surgical	**846**	**870**	**-3**	**-1**

Surgical sales were USD 846 million (-1% cc) in the first quarter. Cataract consumables (+3% cc) grew, benefitting from the strong installed equipment base. IOL sales (-9% cc) declined, mainly due to competitive pressures, despite continued strong growth of *PanOptix* and *UltraSert*. Cataract equipment (-9% cc) declined, primarily due to *LenSx*, which has reached high penetration in its market segment. Vitreoretinal (+12% cc) grew, driven by strong consumables and equipment sales. Refractive/Other sales declined (-10% cc), due to a high prior-year base in equipment, resulting from the agreement with the largest refractive surgery provider in the US.

VISION CARE

	Q1 2017 USD m	Q1 2016 USD m	% change USD	cc
Contact lenses	453	429	6	7
Contact lens care	118	127	-7	-8
Total Vision Care	**571**	**556**	**3**	**4**

Vision Care sales were USD 571 million (+4% cc) in the first quarter. Contact lenses (+7% cc) grew, driven by strong performance of the daily lens portfolio, including continued double-digit growth of *Dailies Total1* in all key markets, benefitting from increased DTC advertising and promotion. Contact lens care (-8% cc) declined mainly due to the continued market shift to daily disposable lenses.

CASH FLOW AND GROUP BALANCE SHEET

Cash flow

First quarter
Cash flows from operating activities amounted to USD 2.0 billion in the first quarter, compared to USD 1.5 billion in the prior-year quarter. The increase of USD 0.5 billion was mainly driven by favorable working capital movements partially offset by lower operating income adjusted for non-cash items.

Cash flows used in investing activities amounted to USD 1.1 billion in the first quarter. This amount includes mainly cash outflows of USD 0.3 billion for the purchase of property, plant and equipment, USD 0.4 billion for intangible, financial and other non-current assets and USD 0.7 billion for acquisitions and divestments of businesses, net (including the Ziarco Group Limited and Encore Vision, Inc. acquisitions). These outflows were partially offset by cash inflows of USD 0.4 billion of proceeds from the sale of non-current assets. In the prior-year quarter, the cash flows used in investing activities amounted to USD 0.8 billion, including USD 0.4 billion for acquisitions and divestments of business, mainly for the acquisition of Transcend Medical, Inc. and an outflow of USD 0.2 billion related to discontinued operations.

The cash flows used in financing activities amounted to USD 0.4 billion in the first quarter, compared to USD 1.0 billion in the prior-year quarter. The current year amount includes cash outflows of USD 6.5 billion for the dividend payment and USD 1.1 billion for treasury share transactions, net. The net inflow from the increase in current and non-current financial debts of USD 7.2 billion was mainly due to the issuance of bonds denominated in US dollar and euro for a total notional amount of USD 5.0 billion and the increase in short-term borrowings of USD 2.2 billion. The prior-year quarter amount included mainly a cash outflow of USD 6.5 billion for the dividend payment and USD 0.2 billion for treasury share transactions, net, partially offset by a net inflow from financial debts of USD 5.7 billion.

Free cash flow amounted to USD 1.7 billion (+ 22% USD) compared to USD 1.4 billion in the prior-year quarter. The increase of USD 0.3 billion was mainly driven by higher cash flows from operating activities partially offset by lower proceeds from the divestment of intangible assets.

Balance sheet

Assets
Total non-current assets of USD 106.2 billion at March 31, 2017 increased by USD 1.0 billion compared to December 31, 2016. Intangible assets other than goodwill increased by USD 0.2 billion, mainly due to business combinations and additions totaling USD 1.3 billion and favorable currency translation adjustments of USD 0.3 billion, partially offset by amortization and impairment charges totaling USD 1.4 billion. Property, plant and equipment increased by 0.1 billion, mainly due to additions of USD 0.3 billion and favorable currency translation adjustments of USD 0.2 billion partially offset by depreciation of USD 0.4 billion.

Goodwill increased by USD 0.2 billion to USD 31.2 billion, mainly on account of business combinations and favorable currency translation adjustments.

Financial and other non-current assets increased by USD 0.5 billion to USD 27.7 billion. This includes: investments in associated companies, which increased by USD 0.2 billion to USD 14.5 billion; deferred tax assets which increased by USD 0.2 billion to USD 10.2 billion, mainly on intangible assets, inventories and pension obligations; and financial assets and other non-current assets, which increased by USD 0.1 billion to USD 3.0 billion.

Total current assets increased by USD 0.8 billion to USD 25.8 billion at March 31, 2017, mainly due to an increase in cash and cash equivalents, marketable securities, commodities and derivatives of USD 0.5 billion and Inventories of USD 0.3 billion. Trade receivables and other current assets were broadly in line with prior year end.

Liabilities
Total non-current and current financial debt, including derivatives, amounted to USD 31.3 billion at March 31, 2017, compared to USD 23.8 billion at December 31, 2016. Non-current financial debt increased by USD 5.0 billion to USD 22.9 billion at March 31, 2017, mainly due to the issuance of bonds denominated in US dollar and euro for total notional amounts of USD 3.0 billion and USD 2.0 billion respectively.

Current financial debt increased by USD 2.4 billion to USD 8.3 billion at March 31, 2017, mainly due to higher short-term borrowings.

Other non-current liabilities amounted to USD 15.1 billion at March 31, 2017 were broadly in line with prior year.

Trade payables and other current liabilities increased by USD 1.7 billion to USD 18.0 billion, compared to USD 16.3 billion at December 31, 2016. Other current liabilities increased by USD 2.0 billion to USD 13.4 billion. This increase was mainly due to the repurchase commitment under the share buyback trading plan of USD 2.4 billion which will be credited to equity once the shares are repurchased or the obligation to repurchase own shares is settled. Trade payables decreased by USD 0.3 billion.

Group equity
The Group's equity decreased by USD 7.2 billion to USD 67.6 billion at March 31, 2017, compared to USD 74.9 billion at December 31, 2016. The decrease was mainly on account of USD 6.5 billion dividend payment, the recognition of the repurchase commitment under the share buyback trading plan of USD 2.4 billion and net treasury shares purchases of USD 1.3 billion, partially offset by net income of USD 1.7 billion, favorable currency translation differences of USD 0.7 billion, net actuarial gains from defined benefit plans of USD 0.3 billion and Equity-based compensation of USD 0.2 billion.

Net debt and debt/equity ratio
The Group's liquidity amounted to USD 8.2 billion at March 31, 2017 compared to USD 7.8 billion at December 31, 2016, and net debt increased to USD 23.0 billion at March 31, 2017 compared to USD 16.0 billion at December 31, 2016. The debt/equity ratio increased to 0.46:1 at March 31, 2017 compared to 0.32:1 at December 31, 2016.

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 first quarter of 2017 include:

New approvals and regulatory opinions

- The FDA has approved ***Kisqali*** (ribociclib, formerly known as LEE011) in combination with an aromatase inhibitor as initial endocrine-based therapy for treatment of postmenopausal women with hormone receptor positive, human epidermal growth factor receptor-2 negative (HR+/HER2-) advanced or metastatic breast cancer.

- The European Commission has approved ***Ilaris*** (canakinumab) to treat three rare and distinct Periodic Fever Syndromes**.**

- The Japanese Ministry of Health, Labour and Welfare (MHLW) approved ***Xolair*** (omalizumab) for the treatment of idiopathic chronic urticaria, also known as chronic spontaneous urticaria (CSU).

- ***Jadenu FCT*** received approval in Switzerland for the treatment chronic transfusional iron overload and for chronic iron overload in patients with non-transfusion-dependent thalassemia.

- In April, the EC approved the use of ***Tafinlar* + *Mekinist*** combination therapy to treat patients with advanced or metastatic non-small cell lung cancer whose tumors express the BRAF V600 mutation.

- ***Votubia*** (everolimus) dispersible tablets was approved by the EC as an adjunctive treatment for patients aged two years and older whose refractory partial-onset seizures, with or without secondary generalization, are associated with TSC. *Votubia* is the first approved pharmacologic therapy in all 28 member states of the EU, plus Iceland and Norway, specifically for the treatment of refractory partial-onset seizures associated with TSC.

- ***Revolade*** (eltrombopag) was approved in Canada for the treatment of pediatric (≥1 years to <18 years) chronic immune thrombocytopenia purpura to increase platelet counts in patients who have had an insufficient response to corticosteroids or immunoglobulins

- The CHMP issued positive opinions for two proposed **Sandoz biosimilars** in April, to treat all indications of their respective reference products: **etanercept** (Amgen's Enbrel®) and **rituximab** (Roche's MabThera®/Rituxan®). If approved, biosimilar etanercept would be used to treat autoimmune diseases including rheumatoid arthritis and biosimilar rituximab would be used to treat autoimmune diseases including rheumatoid arthritis as well as in oncology settings including non-Hodgkin's lymphoma.

- ***AcrySof IQ ReSTOR*** **2.5D Toric IOL with** ***ACTIVEFOCUS*** was approved by the FDA to address presbyopia and preexisting astigmatism at the time of cataract surgery for patients who desire improved near, intermediate, and distance vision.

- ***Dailies Total1*** **Multifocal** contact lenses were approved in Japan to provide refractive corrective with distance, intermediate, and near vision for people with presbyopia (near-sightedness).

Regulatory submissions and filings

- The FDA has accepted the Biologics License Application (BLA) filing and granted Priority Review for **CTL019**, an investigational chimeric antigen receptor T (CAR-T) cell therapy, in pediatric and young adult patients with relapsed or refractory (r/r) CD19-positive B-cell acute lymphoblastic leukemia. This is the first BLA submission by Novartis for a CAR-T, based on results from the Novartis ELIANA study, the first global CAR-T trial of this patient population with enrollment in 25 centers in eleven countries, and supported by data from a US multicenter trial and an earlier single site trial led by the Children's Hospital of Philadelphia. In

April, the FDA also granted Breakthrough Therapy designation to CTL019 for the treatment of adult patients with r/r diffuse large B-cell lymphoma. Novartis entered a global collaboration with the University of Pennsylvania in 2012 to research, develop and commercialize CAR-T therapies for the investigational treatment of cancers, including CTL019.

- ***Zykadia*** (ceritinib) was granted Priority Review by the FDA for use as a first-line treatment for patients with metastatic NSCLC with an ALK mutation. The FDA also granted Breakthrough Therapy designation for *Zykadia* for the first-line treatment of patients with ALK+ metastatic NSCLC with metastases to the brain based on the results of ASCEND-4.

- Based on health authority feedback, Novartis is planning to complete marketing authorization submissions for **SEG101** (crizanlizumab) in the US in 2018 assuming successful PK/PD comparability study to final manufacturing process.

- Novartis intends to submit an application for the approval of oral once-daily **BAF312** (siponimod) in relapsing multiple sclerosis (RMS), following recent discussions with the US Food and Drug Administration. Novartis anticipates submitting BAF312 datasets for FDA review early 2018.

Results from ongoing trials and other highlights

- To further explore ***Kisqali*** in multiple settings, Novartis is initiating two Phase III studies of *Kisqali* in combination with adjuvant endocrine therapy as treatment for patients (pre- and post-menopausal women and men) with HR+/HER2- early breast cancer in the high- and intermediate-risk adjuvant setting. These trials – named EarLEE-1 and EarLEE-2 – are expected to start enrolling in Q2 and Q3 2017.

- Novartis announced new analysis suggesting that ***Entresto*** (sacubitril/valsartan) tablets improved glycemic control, as assessed by hemoglobin A1c (HbA1c) testing, compared to ACE-inhibitor enalapril in a subgroup of patients with reduced ejection fraction heart failure (HFrEF) and diabetes.

- New analyses presented at the American Academy of Dermatology showed that moderate-to-severe psoriasis patients treated with ***Cosentyx*** (secukinumab) rapidly regained clear or almost clear skin (Psoriasis Area Severity Index, PASI 90 to 100) following relapse during a treatment pause. The analysis also showed no anti-secukinumab antibodies were observed during retreatment.

- New data was presented at the Annual Maui Derm for Dermatologists meeting, which showed that ***Cosentyx*** may modify the course of moderate-to-severe psoriasis leading to long-term, treatment-free skin clearance. *Cosentyx* is the first and only IL-17A inhibitor to have reported this potential of disease modification.

- Detailed results from the Phase III STRIVE and ARISE studies investigating the efficacy and safety of **AMG 334** (erenumab) in migraine prevention are being presented at the 2017 American Academy of Neurology (AAN) Annual Meeting in Boston, April 22-28. The data confirms AMG 334 potential to substantially reduce days with migraine for people experiencing up to 14 migraine days a month. In these studies, the safety profile of AMG 334 was comparable to placebo. AMG 334 is being co-developed by Novartis and Amgen.

- In April, the Phase IV **MS-MRIUS** study presented at the 2017 American Academy of Neurology Annual Meeting showed the effectiveness of ***Gilenya*** (fingolimod) in relapsing multiple sclerosis in the real world setting. These results support previous findings from clinical trials and confirm that *Gilenya* impacted all four key measures of MS disease activity (relapses, MRI lesions, disability progression and brain shrinkage (brain volume loss), in people with relapsing-remitting multiple sclerosis (RRMS) over 16 months.

- Sandoz presented Phase III data at the American Academy of Dermatology (AAD) demonstrating its proposed **biosimilar adalimumab** (GP2017) has equivalent efficacy to the reference medicine, Humira®.

- The New England Journal of Medicine (NEJM) published a study conducted by the National Heart, Lung, and Blood Institute (NHLBI) of the US National Institutes of Health demonstrating

that 58% of patients with treatment-naïve severe aplastic anemia (SAA) achieved complete response (CR) at six months when treated with ***Promacta*** (eltrombopag) at the initiation of and concurrently with standard immunosuppressive treatment. Novartis will submit the findings to regulatory bodies for treatment-naïve SAA.

- Novartis entered into an exclusive option agreement with **Ionis** and **Akcea** to license two investigational treatments expected to significantly reduce cardiovascular risk in patients living with elevated levels of lipoprotein Lp(a) or ApoCIII, which is a potent regulator of triglycerides. Investment in biomarker-based therapies bolsters Novartis' cardiovascular specialty pipeline and commitment to address unmet medical need of high-risk atherosclerosis/dyslipidemia patients. Atherosclerosis, commonly called the "silent killer", is a major cause of death globally and no options exist today to effectively treat patients whose disease is driven by Lp(a) and ApoCIII.

- Novartis announced an expanded commercialization agreement with Amgen for **AMG 334** (erenumab), which is being investigated for the prevention of migraine. Novartis and Amgen will co-commercialize AMG 334 (erenumab) in the U.S. Novartis will retain exclusive rights to commercialize the drug in rest of world and will gain commercialization rights in Canada. Amgen retains exclusive commercialization rights in Japan. The companies will continue global co-development. This agreement builds on a 2015 global collaboration between Novartis and Amgen and leverages almost 70 years of Novartis experience in neuroscience to more effectively reach people with migraine.

- In April, Novartis acquired the worldwide ophthalmic rights (ex-EU) for development, manufacturing, sales and marketing ECF843, a recombinant form of lubricin from **Lubris**. ECF843 is a novel disease-modifying approach for the treatment of dry eye. This acquisition bolsters our leading R&D portfolio in Ophthalmology with a new innovative therapy and another potential first-in-class treatment in an area of high unmet medical need.

- In April, Novartis entered into a clinical trial agreement with Allergan to conduct a Phase IIb study, involving the combination of a Novartis FXR agonist and **Allergan**'s cenicriviroc (CVC) for the treatment of non-alcoholic steatohepatitis.

- **RLX030** (serelaxin) Phase III RELAX-AHF-2 study did not meet primary endpoints of reduced cardiovascular death or worsening heart failure in patients with acute heart failure.

Selected approvals: US, EU and Japan

Product	Active ingredient/ Descriptor	Indication	Approval date
Ilaris	Canakinumab	Periodic fever syndrome indications	EU – Feb. 2017
Kisqali (LEE011)	Ribociclib	In combination with an aromatase inhibitor as initial endocrine-based therapy for treatment of postmenopausal women with HR+, HER2- advanced or metastatic breast cancer	US – Mar. 2017
Votubia	Everolimus	Refractory partial-onset seizures associated with tuberous sclerosis complex in patients two years and older	EU – Jan. 2017
Tafinlar + *Mekinist*	Dabrafenib + trametinib	BRAF V600-positive advanced or metastatic non-small cell lung cancer (NSCLC).	EU – Apr. 2017
Xolair	Omalizumab	Chronic spontaneous urticaria	JP – Mar. 2017

Selected projects awaiting regulatory decisions

		Completed submissions			
Product	**Indication**	**US**	**EU**	**Japan**	**News update**
CTL019	Pediatric/young adult acute lymphoblastic leukemia	Q1 2017			· FDA Priority Review · FDA Breakthrough Therapy designation
Kisqali (LEE011) + letrozole	HR+/HER2- postmenopausal advanced breast cancer (aBC) 1st line	Approved	Q3 2016		
PKC412	Acute myeloid leukemia / advanced systemic mastocytosis	Q3 2016	Q3 2016		· FDA Priority Review
Promacta/ Revolade	Aplastic anemia (moderate and severe)			Q4 2016	
Signifor LAR	Cushing's disease		Q4 2016		· US filing withdrawal due to request by FDA for new format for datasets. Novartis is exploring options for re-submitting the application.
Tafinlar + *Mekinist*	BRAF V600+ non-small cell lung cancer (NSCLC)	Q3 2016	Approved	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	· FDA Priority Review

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	- Partnership with Amgen expanded including US co-commercialize and Novartis gaining rights in Canada - Phase III STRIVE and ARISE data presented at AAN (Boston) in April 2017
Arzerra	Non-Hodgkin's lymphoma (refractory)	2019	III	- Fully enrolled
BAF312	Relapsing multiple sclerosis	2018	III	- Positive interaction with FDA, path forward for submission based on the unique patient population studied in the recently communicated positive EXPAND study.
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	II / III	- In partnership with Amgen - FDA Fast Track designation
Cosentyx	Non-radiographic axial spondyloarthritis	2019	III	
	Psoriatic arthritis head-to-head vs. adalimumab	2020	III	
	Ankylosing spondylitis head-to-head vs. adalimumab	≥2021	III	
CTL019	Diffuse large B-cell lymphoma	2017	II	- Trial ongoing, primary cohort for US sBLA and EU MAA submission fully enrolled. - FDA Breakthrough Therapy designation
ECF843	Dry eye	≥2021	II	- Acquisition of worldwide ophthalmic rights (ex-EU) from Lubris - subject to customary closing conditions incl. regulatory approvals
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	
FTY720 (fingolimod)	Pediatric multiple sclerosis	2017	III	
INC280	NSCLC	2018	II	
	NSCLC (EGFRm)	≥2021	II	- FPFV achieved in 2017
Jakavi	Acute graft-versus-host disease (GvHD)	2019	III	
	Chronic graft-versus-host disease (GvHD)	2020	III	
	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	- Fully enrolled
Kisqali (LEE011) + tamoxifen + goserelin or NSAI + goserelin	HR+/HER2- premenopausal aBC 1st line	2018	III	- Fully enrolled
Kisqali (LEE011) + fulvestrant	HR+/HER2- postmenopausal aBC 1st/2nd line	2018	III	- Fully enrolled
Kisqali (LEE011) + adjuvant endocrine therapy	HR+/HER2- BC (adjuvant, high risk)	≥2021	III	
	HR+/HER2- BC (adjuvant, intermediate risk)	≥2021	III	
LIK066	Weight loss	≥2021	II	
LJN452	Non-alcoholic steatohepatitis (NASH)	≥2021	II	- FDA Fast Track designation
Lucentis	Retinopathy of prematurity	2018	III	- Phase III PIP study enrolling
OMB157 (ofatumumab)	Relapsing multiple sclerosis	2019	III	
PDR001 + *Tafinlar* + *Mekinist*	Metastatic BRAF V600+ melanoma	2019	III	- FPFV achieved in 2017
PDR001	NET	2019	II	- FPFV achieved in 2017
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	- Phase 3 program recruiting
	Atopic dermatitis	≥2021	II	- Phase 2 gated to futility in asthma
QBW251	Cystic fibrosis	≥2021	II	
QGE031	Chronic spontaneous urticaria / chronic idiopathic urticaria	2020	II	
QMF149	Asthma	2019	III	
QVM149	Asthma	2019	III	
RTH258	nAMD	2018	III	- Recruitment completed
	Diabetic macular edema	2020	III	
SEG101	Sickle cell pain crises	2018	III	
Tafinlar + *Mekinist*	BRAF V600+ melanoma (adjuvant)	2018	III	- Trial ongoing
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 - FDA Breakthrough Therapy designation

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	- Data presented at AAD (Florida) in March 2017 showed that confirmatory Phase III study met primary endpoint of equivalent efficacy to reference product.
GP2015 (etanercept)	Arthritides (rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis), plaque psoriasis and others (same as originator)	US EU	Approved Submitted	- 52 week data from EGALITY study presented in *British Journal of Dermatology* - Positive CHMP opinion received in April 2017
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	- ASSIST-FL results presented at ASH - Positive CHMP opinion received in April 2017
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	- 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	
GP2018 (infliximab)	Autoimmune diseases including rheumatoid arthritis and psoriasis (same as originator)	US	I	

Selected Alcon approvals: US, EU and Japan

Product	Active ingredient/ Descriptor	Indication	Approval date
AcrySof IQ ReSTOR Toric IOL 2.5D with ACTIVEFOCUS	Multifocal IOL for astigmatism	Cataract	US – March 2017
Dailies Total1 Multifocal	*Dailies Total1* line extension for presbyopia correction	Presbyopia	JP – Feb. 2017

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
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 (manual load system)	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	EU 2018	Advanced	
A01660	New daily disposable lens	US 2018 EU 2018	Advanced Advanced	

CONDENSED INTERIM CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statements

First quarter (unaudited)

(USD millions unless indicated otherwise)	**Q1 2017**	Q1 2016	Change
Net sales	**11 539**	**11 600**	**-61**
Other revenues	246	210	36
Cost of goods sold	-4 105	-4 212	107
Gross profit	**7 680**	**7 598**	**82**
Marketing & Sales	-2 989	-2 741	-248
Research & Development	-2 169	-2 041	-128
General & Administration	-483	-564	81
Other income	445	777	-332
Other expense	-562	-578	16
Operating income	**1 922**	**2 451**	**-529**
Income from associated companies	215	127	88
Interest expense	-180	-185	5
Other financial income and expense	-10	-41	31
Income before taxes	**1 947**	**2 352**	**-405**
Taxes	-282	-341	59
Net income	**1 665**	**2 011**	**-346**
Attributable to:			
Shareholders of Novartis AG	*1 666*	*2 011*	*-345*
Non-controlling interests	*-1*	*0*	*-1*
Weighted average number of shares outstanding – Basic (million)	**2 372**	**2 379**	**-7**
Total basic earnings per share (USD) [1]	**0.70**	**0.85**	**-0.15**
Weighted average number of shares outstanding – Diluted (million)	2 389	2 398	-9
Total diluted earnings per share (USD) [1]	0.70	0.84	-0.14

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

Condensed consolidated statements of comprehensive income

First quarter (unaudited)

(USD millions)	**Q1 2017**	Q1 2016	Change
Net income	**1 665**	**2 011**	**-346**
Other comprehensive income to be eventually recycled into the consolidated income statement:			
Fair value adjustments on financial instruments, net of taxes	-13	-230	217
Novartis share of other comprehensive income recognized by associated companies, net of taxes	131	-11	142
Translation effects	666	448	218
Total of items to eventually recycle	*784*	*207*	*577*
Other comprehensive income never to be recycled into the consolidated income statement:			
Net actuarial gains/(losses) from defined benefit plans, net of taxes	318	-1 042	1 360
Comprehensive income	**2 767**	**1 176**	**1 591**
Attributable to:			
Shareholders of Novartis AG	*2 766*	*1 176*	*1 590*
Non-controlling interests	*1*	*0*	*1*

Condensed consolidated balance sheets

(USD millions)	**Mar 31, 2017 (unaudited)**	Dec 31, 2016 (audited)	Change
Assets			
Non-current assets			
Property, plant & equipment	15 772	15 641	131
Goodwill	31 197	30 980	217
Intangible assets other than goodwill	31 529	31 340	189
Financial and other non-current assets	27 722	27 232	490
Total non-current assets	**106 220**	**105 193**	**1 027**
Current assets			
Inventories	6 583	6 255	328
Trade receivables	8 234	8 202	32
Other current assets	2 712	2 697	15
Cash and cash equivalents, marketable securities, commodities and derivatives	8 237	7 777	460
Total current assets	**25 766**	**24 931**	**835**
Total assets	**131 986**	**130 124**	**1 862**
Equity and liabilities			
Equity attributable to Novartis AG shareholders	67 586	74 832	-7 246
Non-controlling interests	60	59	1
Total equity	**67 646**	**74 891**	**-7 245**
Non-current liabilities			
Financial debts	22 933	17 897	5 036
Other non-current liabilities	15 077	15 127	-50
Total non-current liabilities	**38 010**	**33 024**	**4 986**
Current liabilities			
Trade payables	4 566	4 873	-307
Financial debts and derivatives	8 324	5 905	2 419
Other current liabilities	13 440	11 431	2 009
Total current liabilities	**26 330**	**22 209**	**4 121**
Total liabilities	**64 340**	**55 233**	**9 107**
Total equity and liabilities	**131 986**	**130 124**	**1 862**

Condensed consolidated changes in equity

First quarter (unaudited)

(USD millions)	**Q1 2017**	Q1 2016	Change
Consolidated equity at January 1	**74 891**	**77 122**	**-2 231**
Comprehensive income	2 767	1 176	1 591
Purchase of treasury shares	-1 543	-355	-1 188
Exercise of options and employee transactions	231	206	25
Equity-based compensation	199	215	-16
Increase of treasury share repurchase obligation under a share buyback trading plan	-2 404		-2 404
Dividends to shareholders of Novartis AG	-6 495	-6 475	-20
Consolidated equity at March 31	**67 646**	**71 889**	**-4 243**

Condensed consolidated cash flow statements

First quarter (unaudited)

(USD millions)	**Q1 2017**	Q1 2016	Change
Net income	**1 665**	**2 011**	**-346**
Reversal of non-cash items			
Taxes	282	341	-59
Depreciation, amortization and impairments	1 776	1 369	407
Change in provisions and other non-current liabilities	-69	261	-330
Income from associated companies	-215	-127	-88
Net financial expense	190	226	-36
Other	-95	-193	98
Net income adjusted for non-cash items	**3 534**	**3 888**	**-354**
Interest and other financial receipts	487	451	36
Interest and other financial payments	-130	-134	4
Taxes paid [1]	-437	-519	82
Cash flows before working capital changes	**3 454**	**3 686**	**-232**
Payments out of provisions and other net cash movements in non-current liabilities	-148	-512	364
Change in net current assets and other operating cash flow items	-1 261	-1 632	371
Cash flows from operating activities	**2 045**	**1 542**	**503**
Purchase of property, plant & equipment	-344	-385	41
Purchase of intangible, financial and other non-current assets	-389	-324	-65
Proceeds from sales of property, plant & equipment, intangible and financial assets	353	529	-176
Acquisitions and divestments of businesses, net	-659	-414	-245
Change in marketable securities and commodities	-15	30	-45
Cash flows used in investing activities from continuing operations	**-1 054**	**-564**	**-490**
Cash flows used in investing activities from discontinued operations [1]	-47	-208	161
Total cash flows used in investing activities	**-1 101**	**-772**	**-329**
Dividends related to shareholders of Novartis AG	-6 495	-6 475	-20
Change in current and non-current financial debts	7 234	5 661	1 573
Treasury share transactions, net	-1 058	-184	-874
Other financing cash flows	-69	-29	-40
Cash flows used in financing activities	**-388**	**-1 027**	**639**
Effect of exchange rate changes on cash and cash equivalents	9	40	-31
Change in cash and cash equivalents	**565**	**-217**	**782**
Cash and cash equivalents at January 1	7 007	4 674	2 333
Cash and cash equivalents at March 31	**7 572**	**4 457**	**3 115**

[1] In Q1 2016, the total net tax payment amounted to USD 656 million, of which USD 137 million was included in the cash flows used in investing activities from discontinued operations.

Notes to the Condensed Interim Consolidated Financial Statements for the three-month period ended March 31, 2017 (unaudited)

1. Basis of preparation

These Condensed Interim Consolidated Financial Statements for the three months period ended March 31, 2017, 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.

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 and financial condition.

3. Significant transactions

Significant transactions in 2017

Innovative Medicines – Acquisition of Ziarco Group Limited
On January 20, 2017, Novartis acquired Ziarco Group Limited, a privately held company focused on the development of novel treatments in dermatology. This acquisition adds a once daily oral H4 receptor antagonist in development for atopic dermatitis (AD), commonly known as eczema, to complement the Novartis dermatology portfolio and pipeline. The preliminary fair value of the total purchase consideration was USD 420 million. The amount consisted of an initial cash payment of USD 325 million and the preliminary net present value of the contingent consideration of USD 95 million, due to the Ziarco shareholders, which they are eligible to receive upon achievement of specified development milestones. The preliminary purchase price allocation resulted in net identifiable assets of USD 395 million and goodwill of USD 25 million. Results of operations since the date of acquisition were not material.

Innovative Medicines – Acquisition of Encore Vision, Inc.
On January 20, 2017, Novartis acquired Encore Vision, Inc., a privately-held company in Fort Worth, Texas, USA, focused on the development of a novel treatment in presbyopia. The preliminary fair value of the total purchase consideration was USD 456 million. The amount consisted of an initial cash payment of USD 366 million and the preliminary net present value of the contingent consideration of USD 90 million, due to the Encore shareholders, which they are eligible to receive upon achievement of specified development and commercialization milestones. The preliminary purchase price allocation resulted in net identifiable assets of USD 389 million and goodwill of USD 67 million. Results of operations since the date of acquisition were not material.

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 Reprixys Pharmaceuticals Corporation
Reprixys Pharmaceuiticals Corporation was formerly known as Selexys Pharmaceuticals Corporation and is not affiliated with Selexis S.A. On November 18, 2016, Novartis acquired Reprixys Pharmaceuticals Corporation (Reprixys), 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% was 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 Reprixys 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.

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)		
	2017	2016	Change	**Q1 2017**	Q1 2016	Change
Balance at beginning of year	**2 374.1**	**2 373.9**	**0.2**	**74 832**	**77 046**	**-2 214**
Shares acquired to be cancelled	-18.9	-3.0	-15.9	-1 416	-218	-1 198
Other share purchases	-1.7	-1.7	0.0	-127	-137	10
Exercise of options and employee transactions	4.2	4.0	0.2	231	206	25
Equity-based compensation	7.9	8.1	-0.2	199	215	-16
Increase of treasury share repurchase obligation under a share buyback trading plan				-2 404		-2 404
Dividends to shareholders of Novartis AG				-6 495	-6 475	-20
Net income of the period attributable to shareholders of Novartis AG				1 666	2 011	-345
Other comprehensive income attributable to shareholders of Novartis AG				1 100	-835	1 935
Balance at March 31	**2 365.6**	**2 381.3**	**-15.7**	**67 586**	**71 813**	**-4 227**

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.

Innovative Medicines 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, that are not protected by valid and enforceable third-party patents. Sandoz 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, ophthalmics, cardiovascular, metabolism, central nervous system, pain, gastrointestinal, and hormonal therapies, as well as finished dosage form anti-infectives sold to third parties. 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, including biosimilars, and provides biotechnology manufacturing services to other companies.

Alcon researches, discovers, develops, manufactures, distributes and sells eye care products. Alcon is the global leader in eye care with product offerings in eye care devices and vision care. Alcon is organized into two global business franchises: Surgical and Vision Care. The Surgical franchise includes technologies and devices for cataract, retinal, glaucoma and refractive surgery, as well as intraocular lenses to treat cataract and refractive errors, like presbyopia and astigmatism. Alcon also provides viscoelastics, surgical solutions, surgical packs, and other disposable products for cataract and vitreoretinal surgery. The Vision Care franchise comprises daily disposable, monthly replacement, and color-enhancing contact lenses, as well as a complete line of contact lens care products including multi-purpose and hydrogen-peroxide based solutions, rewetting drops and daily protein removers.

The divisions are supported by Novartis Institute for BioMedical Research, Novartis Business Services, Global Drug Development and Novartis Technical Operations. Corporate activities include Group headquarter functions and items that are not specific to one segment. Further details are provided in Note 3 to the Consolidated Financial Statements of the Annual Report 2016.

Segmentation – First quarter

(USD millions)	Innovative Medicines		Sandoz		Alcon		Corporate (including eliminations)		Group	
	Q1 2017	Q1 2016	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016
Net sales to third parties	**7 692**	**7 729**	**2 430**	**2 445**	**1 417**	**1 426**			**11 539**	**11 600**
Sales to other segments	174	164	27	25	1		-202	-189		
Net sales	**7 866**	**7 893**	**2 457**	**2 470**	**1 418**	**1 426**	**-202**	**-189**	**11 539**	**11 600**
Other revenues	217	177	10	9		4	19	20	246	210
Cost of goods sold	-2 155	-2 240	-1 390	-1 438	-781	-763	221	229	-4 105	-4 212
Gross profit	**5 928**	**5 830**	**1 077**	**1 041**	**637**	**667**	**38**	**60**	**7 680**	**7 598**
Marketing & Sales	-2 095	-1 918	-435	-410	-459	-413			-2 989	-2 741
Research & Development	-1 863	-1 732	-186	-195	-120	-114			-2 169	-2 041
General & Administration	-235	-244	-74	-80	-102	-119	-72	-121	-483	-564
Other income	285	541	10	38	14	18	136	180	445	777
Other expense	-299	-297	-49	-48	-13	-8	-201	-225	-562	-578
Operating income	**1 721**	**2 180**	**343**	**346**	**-43**	**31**	**-99**	**-106**	**1 922**	**2 451**
as % of net sales	*22.4%*	*28.2%*	*14.1%*	*14.2%*	*-3.0%*	*2.2%*			*16.7%*	*21.1%*
Income from associated companies			1	2			214	125	215	127
Interest expense									-180	-185
Other financial income and expense									-10	-41
Income before taxes									**1 947**	**2 352**
Taxes									-282	-341
Net income									**1 665**	**2 011**

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 March 31, 2017 and December 31, 2016. 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)	**Mar 31, 2017**	Dec 31, 2016	**Mar 31, 2017**	Dec 31, 2016	**Mar 31, 2017**	Dec 31, 2016	**Mar 31, 2017**	Dec 31, 2016	**Mar 31, 2017**	Dec 31, 2016
Debt securities	301	284	22	22					323	306
Equity securities										
Fund investments	31	31							31	31
Total available-for-sale marketable securities	**332**	**315**	**22**	**22**					**354**	**337**
Time deposits with original maturity more than 90 days							113	108	113	108
Derivative financial instruments			93	230					93	230
Accrued interest on debt securities							1	1	1	1
Total marketable securities, time deposits and derivative financial instruments	**332**	**315**	**115**	**252**			**114**	**109**	**561**	**676**
Financial investments and long-term loans										
Available-for-sale financial investments	555	513			471	476			1 026	989
Fund investments					113	107			113	107
Contingent consideration receivables					595	586			595	586
Long-term loans and receivables from customers and finance lease, advances, security deposits							515	514	515	514
Financial investments and long-term loans	**555**	**513**			**1 179**	**1 169**	**515**	**514**	**2 249**	**2 196**
Associated companies at fair value through profit or loss					**188**	**188**			**188**	188
Contingent consideration payables					-789	-889			-789	-889
Other financial liabilities					-88	-129			-88	-129
Derivative financial instruments			-112	-116					-112	-116
Total financial liabilities at fair value			**-112**	**-116**	**-877**	**-1 018**			**-989**	**-1 134**

There were no changes in the first three months of the year in the valuation techniques used for financial instruments nor significant transfers from one level to the other nor significant transactions associated with level 3 financial instruments.

The fair value of straight bonds amounted to USD 23.0 billion at March 31, 2017 (USD 17.9 billion at December 31, 2016) compared to the balance sheet value of USD 22.3 billion at March 31, 2017 (USD 17.3 billion at December 31, 2016).

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 March 31, 2017 (USD 2.2 billion at December 31, 2016) 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 2016 Annual Report and 2016 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. As of April 24, 2017, there were no significant developments in those proceedings.

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 and related items, 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 – First quarter

	Innovative Medicines		Sandoz		Alcon		Corporate		Group	
(USD millions)	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016	**Q1 2017**	Q1 2016
IFRS Operating income	**1 721**	**2 180**	**343**	**346**	**-43**	**31**	**-99**	**-106**	**1 922**	**2 451**
Amortization of intangible assets	**533**	**609**	**111**	**116**	**225**	**221**			**869**	**946**
Impairments										
Intangible assets	499	2	1	3		4			500	9
Property, plant & equipment related to the Group-wide rationalization of manufacturing sites			-1						-1	
Other property, plant & equipment				7						7
Financial assets							22	20	22	20
Total impairment charges	**499**	**2**	**0**	**10**		**4**	**22**	**20**	**521**	**36**
Acquisition or divestment of businesses and related items										
- Income	-1	-7					-40	-68	-41	-75
- Expense	8	5					39	67	47	72
Total acquisition or divestment of businesses and related items, net	**7**	**-2**					**-1**	**-1**	**6**	**-3**
Other items										
Divestment gains	-181	-326							-181	-326
Restructuring and related items										
- Income	-6	-15		-18	-1	-1		-1	-7	-35
- Expense	74	99	6	31	11	1	8	17	99	148
Legal-related items										
- Income	-1	-99							-1	-99
- Expense		136								136
Additional income	-303				-5	-13		-8	-308	-21
Additional expense	83	18					7	10	90	28
Total other items	**-334**	**-187**	**6**	**13**	**5**	**-13**	**15**	**18**	**-308**	**-169**
Total adjustments	**705**	**422**	**117**	**139**	**230**	**212**	**36**	**37**	**1 088**	**810**
Core operating income	**2 426**	**2 602**	**460**	**485**	**187**	**243**	**-63**	**-69**	**3 010**	**3 261**
as % of net sales	*31.5%*	*33.7%*	*18.9%*	*19.8%*	*13.2%*	*17.0%*			*26.1%*	*28.1%*
Income from associated companies			1	2			214	125	215	127
Core adjustments to income from associated companies, net of tax							137	126	137	126
Interest expense									-180	-185
Other financial income and expense									-10	-41
Taxes (adjusted for above items)									-482	-500
Core net income									**2 690**	**2 788**
Core net income attributable to shareholders of Novartis AG									**2 691**	**2 788**
Core basic EPS (USD) [1]									**1.13**	**1.17**

[1] 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 – First quarter

(USD millions)	Q1 2017 IFRS results	Amortization of intangible assets [1]	Impairments [2]	Acquisition or divestment of businesses and related items [3]	Other items [4]	Q1 2017 Core results	Q1 2016 Core results
Gross profit	**7 680**	**852**	**32**		**10**	**8 574**	**8 562**
Operating income	**1 922**	**869**	**521**	**6**	**-308**	**3 010**	**3 261**
Income before taxes	**1 947**	**1 005**	**521**	**6**	**-307**	**3 172**	**3 288**
Taxes [5]	-282					-482	-500
Net income	**1 665**					**2 690**	**2 788**
Basic EPS (USD) [6]	**0.70**					**1.13**	**1.17**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-4 105	852	32		10	-3 211	-3 248
The following are adjustments to arrive at Core Operating Income							
Research & Development	-2 169	17	468		-300	-1 984	-2 011
General & Administration	-483				3	-480	-553
Other income	445			-41	-194	210	234
Other expense	-562		21	47	173	-321	-230
The following are adjustments to arrive at Core Income before taxes							
Income from associated companies	215	136			1	352	253

[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 136 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 expense includes impairment charges related to financial assets and a partial reversal of impairment charges related to property, plant and equipment.

[3] Acquisition or divestment of businesses and 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.

[4] Other items: Cost of goods sold and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Research & Development, Other income and Other expense include other restructuring income and charges and related items; Research & Development includes the release of a contingent consideration and Other expense includes a charge for onerous contracts, both related to the impairment of an IPR&D intangible asset; General & Administration includes items related to setup costs for Novartis Business Services; Other income also includes gains from product divestments and a partial reversal of a prior period charge; Income from associated companies includes an adjustment of USD 1 million for the Novartis share of the estimated GSK Consumer Healthcare Holdings Ltd. core items.

[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 of USD 1.2 billion, to arrive at the core results before tax, amounts to USD 200 million. The average tax rate on the adjustments is 16.3% since the estimated full year tax charge of 15.2% 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 – First quarter

(USD millions)	Q1 2017 IFRS results	Amortization of intangible assets [1]	Impairments [2]	Acquisition or divestment of businesses and related items [3]	Other items [4]	Q1 2017 Core results	Q1 2016 Core results
Gross profit	**5 928**	**519**	**31**		**9**	**6 487**	**6 446**
Operating income	**1 721**	**533**	**499**	**7**	**-334**	**2 426**	**2 602**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-2 155	519	31		9	-1 596	-1 624
The following are adjustments to arrive at Core Operating Income							
Research & Development	-1 863	14	468		-300	-1 681	-1 705
Other income	285			-1	-188	96	94
Other expense	-299			8	145	-146	-71

[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: Cost of goods sold and Research & Development include impairment charges related to intangible assets.
[3] Acquisition or divestment of businesses and 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.
[4] Other items: Cost of goods sold and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Research & Development, Other income and Other expense include other restructuring income and charges and related items; Research & Development includes the release of a contingent consideration and Other expense includes a charge for onerous contracts, both related to the impairment of an IPR&D intangible asset; Other income also includes gains from product divestments.

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

(USD millions)	Q1 2017 IFRS results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment of businesses and related items	Other items[3]	Q1 2017 Core results	Q1 2016 Core results
Gross profit	**1 077**	**111**	**1**		**1**	**1 190**	**1 180**
Operating income	**343**	**111**	**0**		**6**	**460**	**485**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-1 390	111	1		1	-1 277	-1 299
The following are adjustments to arrive at Core Operating Income							
Other expense	-49		-1		5	-45	-30

[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 an impairment charge related to intangible assets; Other expense includes a partial reversal of impairment charges related to property, plant and equipment.
[3] Other items: Cost of goods sold and Other expense include net restructuring and other charges related to the Group-wide rationalization of manufacturing sites; Other expense also includes other restructuring charges and related items.

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

(USD millions)	Q1 2017 IFRS results	Amortization of intangible assets[1]	Impairments	Acquisition or divestment of businesses and related items	Other items[2]	Q1 2017 Core results	Q1 2016 Core results
Gross profit	**637**	**222**				**859**	**876**
Operating loss/income	**-43**	**225**			**5**	**187**	**243**
The following are adjustments to arrive at Core Gross Profit							
Cost of goods sold	-781	222				-559	-554
The following are adjustments to arrive at Core Operating Income							
Research & Development	-120	3				-117	-111
Other income	14				-6	8	17
Other expense	-13				11	-2	-7

[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 and related items; Other income also includes the partial reversal of a prior period charge.

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

(USD millions)	Q1 2017 IFRS results	Amortization of intangible assets	Impairments [1]	Acquisition or divestment of businesses and related items [2]	Other items [3]	Q1 2017 Core results	Q1 2016 Core results
Gross profit	**38**					**38**	**60**
Operating loss	**-99**		**22**	**-1**	**15**	**-63**	**-69**
The following are adjustments to arrive at Core Operating Loss							
General & Administration	-72				3	-69	-110
Other income	136			-40		96	103
Other expense	-201		22	39	12	-128	-122

[1] Impairments: Other expense includes impairment charges related to financial assets.
[2] Acquisition or divestment of businesses and 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 includes items related to setup costs for Novartis Business Services; Other expense also includes restructuring charges and other costs.

Condensed consolidated changes in net debt

First quarter

(USD millions)	**Q1 2017**	Q1 2016
Change in cash and cash equivalents	**565**	**-217**
Change in marketable securities, commodities, financial debt and financial derivatives	-7 560	-6 307
Increase in net debt	**-6 995**	**-6 524**
Net debt at January 1	-16 025	-16 484
Net debt at March 31	**-23 020**	**-23 008**

Components of net debt

(USD millions)	**Mar 31, 2017**	Mar 31, 2016
Current financial debts and derivative financial instruments	-8 324	-11 629
Non-current financial debts	-22 933	-16 465
Less liquidity:		
Cash and cash equivalents	7 572	4 457
Marketable securities, commodities and derivative financial instruments	665	629
Net debt at March 31	**-23 020**	**-23 008**

Share information

	Mar 31, 2017	Mar 31, 2016
Number of shares outstanding	**2 365 595 754**	2 381 276 524
Registered share price (CHF)	**74.35**	69.70
ADR price (USD)	**74.27**	72.44
Market capitalization (USD billions)	**175.7**	172.1
Market capitalization (CHF billions)	**175.9**	166.0

Free cash flow

First quarter

(USD millions)	**Q1 2017**	Q1 2016	Change
Operating income	**1 922**	**2 451**	**-529**
Reversal of non-cash items			
Depreciation, amortization and impairments	1 776	1 369	407
Change in provisions and other non-current liabilities	-69	261	-330
Other	-95	-193	98
Operating income adjusted for non-cash items	**3 534**	**3 888**	**-354**
Interest and other financial receipts	487	451	36
Interest and other financial payments	-130	-134	4
Taxes paid	-437	-519	82
Payments out of provisions and other net cash movements in non-current liabilities	-148	-512	364
Change in inventory and trade receivables less trade payables	-583	-1 364	781
Change in other net current assets and other operating cash flow items	-678	-268	-410
Cash flows from operating activities	**2 045**	**1 542**	**503**
Purchase of property, plant & equipment	-344	-385	41
Purchase of intangible, financial and other non-current assets	-389	-324	-65
Proceeds from sales of property, plant & equipment, intangible and financial assets	353	529	-176
Free cash flow	**1 665**	**1 362**	**303**

Net sales of the top 20 Innovative Medicines products in 2017 –First 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**
Gilenya	Neuroscience	Relapsing multiple sclerosis	372	1	350	9	**722**	**3**	**5**
Gleevec/Glivec	Oncology	Chronic myeloid leukemia and GIST	179	-44	365	-27	**544**	**-35**	**-34**
Lucentis	Ophthalmology	Age-related macular degeneration			445	3	**445**	**-2**	**3**
Tasigna	Oncology	Chronic myeloid leukemia	180	10	231	9	**411**	**8**	**9**
Cosentyx	Immunology and Dermatology	Psoriasis, ankylosing spondylitis and psoriatic arthritis	258	110	152	196	**410**	**133**	**136**
Sandostatin	Oncology	Carcinoid tumors and Acromegaly	206	-1	179	-6	**385**	**-4**	**-3**
Afinitor/Votubia	Oncology	Breast cancer / TSC	180	-5	164	-4	**344**	**-6**	**-4**
Galvus	Cardio-Metabolic	Diabetes			286	4	**286**	**1**	**4**
Exjade/Jadenu	Oncology	Chronic iron overload	113	8	134	17	**247**	**11**	**12**
Diovan/Co–Diovan	Established Medicines	Hypertension	23	-41	219	-2	**242**	**-11**	**-8**
Exforge	Established Medicines	Hypertension	11	nm	217	3	**228**	**3**	**8**
Xolair[1]	Respiratory	Asthma			202	11	**202**	**5**	**11**
Tafinlar + Mekinist	Oncology	Melanoma	73	9	114	42	**187**	**25**	**27**
Votrient	Oncology	Renal cell carcinoma	89	10	89	5	**178**	**7**	**8**
Promacta/Revolade	Oncology	Immune thrombocytopenic purpura	90	45	85	26	**175**	**34**	**35**
Jakavi	Oncology	Myelofibrosis			162	34	**162**	**31**	**34**
Travoprost Group	Ophthalmology	Reduction of elevated intraocular pressure	57	4	91	-5	**148**	**-2**	**-1**
Voltaren/Cataflam	Established Medicines	Inflammation/pain			119	10	**119**	**-4**	**10**
Neoral/Sandimmun(e)	Immunology and Dermatology	Transplantation	10	0	105	-5	**115**	**-7**	**-5**
Topical Olopatadine Group	Ophthalmology	Allergic Conjunctivitis	39	-47	61	-3	**100**	**-26**	**-26**
Top 20 products total			**1 880**	**1**	**3 770**	**4**	**5 650**	**1**	**3**
Rest of portfolio			662	-3	1 380	-1	**2 042**	**-4**	**-1**
Total Division sales			**2 542**	**0**	**5 150**	**3**	**7 692**	**0**	**2**

[1] Net sales reflect *Xolair* sales for all indications (e.g. including *Xolair* SAA and *Xolair* CSU, which is managed by the Immunology and Dermatology franchise).

nm = not meaningful

Innovative Medicines net sales by business franchise – First quarter

	Q1 2017 USD m	Q1 2016 USD m	% change USD	% change cc
Oncology				
Gleevec/Glivec	544	834	-35	-34
Tasigna	411	382	8	9
Sandostatin	385	401	-4	-3
Afinitor/Votubia	344	367	-6	-4
Exjade/Jadenu	247	223	11	12
Tafinlar + Mekinist	187	150	25	27
Votrient	178	166	7	8
Promacta/Revolade	175	131	34	35
Jakavi	162	124	31	34
Other	223	251	-11	-9
Total Oncology business unit	**2 856**	**3 029**	**-6**	**-4**
Ophthalmology				
Lucentis	445	452	-2	3
Travoprost Group	148	151	-2	-1
Topical Olopatadine Group	100	136	-26	-26
Systane Group	88	89	-1	-1
Other	540	542	0	1
Total Ophthalmology	**1 321**	**1 370**	**-4**	**-2**
Immunology and Dermatology				
Cosentyx	410	176	133	136
Neoral/Sandimmun(e)	115	123	-7	-5
Zortress/Certican	91	91	0	5
Myfortic	82	104	-21	-11
Ilaris	82	62	32	33
Other	64	64	0	2
Total Immunology and Dermatology	**844**	**620**	**36**	**41**
Neuroscience				
Gilenya	722	698	3	5
Other	24	33	-27	-26
Total Neuroscience	**746**	**731**	**2**	**4**
Respiratory				
Ultibro Breezhaler	91	78	17	19
Seebri Breezhaler	36	35	3	6
Onbrez Breezhaler/Arcapta Neohaler	28	33	-15	-11
Subtotal COPD[1] portfolio	**155**	**146**	**6**	**9**
Xolair[2]	202	192	5	11
Other	7	8	-13	6
Total Respiratory	**364**	**346**	**5**	**10**
Cardio-Metabolic				
Entresto	84	17	nm	nm
Other	4	3	33	31
Total Cardio-Metabolic	**88**	**20**	**nm**	**nm**
Established Medicines				
Galvus	286	283	1	4
Diovan/Co-Diovan	242	272	-11	-8
Exforge	228	221	3	8
Voltaren/Cataflam	119	124	-4	10
Exelon/Exelon Patch	97	116	-16	-16
Ritalin/Focalin	57	70	-19	-19
Other	444	527	-16	-13
Total Established Medicines	**1 473**	**1 613**	**-9**	**-5**
Total Pharmaceuticals business unit	**4 836**	**4 700**	**3**	**6**
Total Division net sales	**7 692**	**7 729**	**0**	**2**

[1] Chronic Obstructive Pulmonary Disease
[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 franchise).

nm = not meaningful

Net sales by region[1] – First quarter

	Q1 2017	Q1 2016	% change		**Q1 2017**	Q1 2016
	USD m	USD m	USD	cc	**% of total**	% of total
Innovative Medicines						
Europe	2 625	2 698	-3	1	34	35
US	2 542	2 545	0	0	33	33
Asia/Africa/Australasia	1 874	1 846	2	4	24	24
Canada and Latin America	651	640	2	6	9	8
Total	**7 692**	**7 729**	**0**	**2**	**100**	**100**
Of which in Established Markets	5 698	5 786	-2	0	74	75
Of which in Emerging Growth Markets	1 994	1 943	3	8	26	25
Sandoz						
Europe	1 069	1 076	-1	2	44	44
US	864	865	0	0	36	35
Asia/Africa/Australasia	320	353	-9	-5	13	14
Canada and Latin America	177	151	17	9	7	7
Total	**2 430**	**2 445**	**-1**	**1**	**100**	**100**
Of which in Established Markets	1 801	1 805	0	1	74	74
Of which in Emerging Growth Markets	629	640	-2	-1	26	26
Alcon						
Europe	377	376	0	4	27	26
US	609	607	0	0	43	43
Asia/Africa/Australasia	326	329	-1	-2	23	23
Canada and Latin America	105	114	-8	1	7	8
Total	**1 417**	**1 426**	**-1**	**1**	**100**	**100**
Of which in Established Markets	1 123	1 124	0	1	79	79
Of which in Emerging Growth Markets	294	302	-3	1	21	21
Group						
Europe	4 071	4 150	-2	2	35	36
US	4 015	4 017	0	0	35	35
Asia/Africa/Australasia	2 520	2 528	0	2	22	22
Canada and Latin America	933	905	3	6	8	7
Total	**11 539**	**11 600**	**-1**	**2**	**100**	**100**
Of which in Established Markets	8 622	8 715	-1	0	75	75
Of which in Emerging Growth Markets	2 917	2 885	1	6	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.

Principal currency translation rates

First quarter

	Average rates Q1 2017	Average rates Q1 2016	**Period-end rates Mar 31, 2017**	Period-end rates Mar 31, 2016
1 CHF	**0.996**	1.005	**0.999**	1.037
1 CNY	**0.145**	0.153	**0.145**	0.155
1 EUR	**1.065**	1.102	**1.067**	1.132
1 GBP	**1.238**	1.431	**1.245**	1.435
100 JPY	**0.880**	0.867	**0.894**	0.890
100 RUB	**1.703**	1.337	**1.789**	1.473

Income from associated companies

(USD millions)	**Q1 2017**	Q1 2016
Share of estimated Roche reported results	*174*	*179*
Prior-year adjustment	*-67*	*-68*
Amortization of additional intangible assets recognized by Novartis on initial accounting for the equity interest	*-36*	*-36*
Net income effect from Roche Holding AG	71	75
Share of estimated GSK Consumer Healthcare Holdings Ltd. reported results	*97*	*53*
Prior-year adjustment	*47*	
Amortization of additional intangible assets recognized by Novartis on initial accounting for the equity interest	*-1*	*-3*
Net income effect from GlaxoSmithKline Consumer Healthcare Holdings Ltd.	143	50
Others	1	2
Income from associated companies	**215**	**127**

Core income from associated companies

(USD millions)	**Q1 2017**	Q1 2016
Income from associated companies	**215**	**127**
Share of estimated Roche core adjustments	66	52
Roche prior year adjustment	70	36
Share of estimated GSK Consumer Healthcare Holdings Ltd. core adjustments	20	38
GSK Consumer Healthcare Holdings Ltd. prior year adjustment	-19	
Core income from associated companies	**352**	**253**

Disclaimer

This press release contains forward-looking statements that can be identified by words such as such as “growth drivers,” “momentum,” “positive CHMP opinion,” “Priority Review,” “path forward,” “growth plan,” “outlook,” “expected,” “confidence,” “growth phase,” “expect,” “launch,” “continued focus,” “launch trajectory,” “launches,” “pipelines,” “investigational,” “Breakthrough Therapy,” “suggests,” “may,” “pipeline,” “strategic review,” “under consideration,” “will,” “for the future,” “continued,” “being implemented,” “would,” “ongoing,” “continuing,” “evaluating,” “investigating,” “may,” “potential,” “proposed,” “option,” “commitment,” “planned,” “to further strengthen,” “to maximize,” “initiating,” “under review,” “subject to,” “explore,” “exploring,” “aims,” “toward,” “to accelerate,” “recommended,” “Fast Track,” “being co-developed,” “growing,” “roadmap,” “time horizon,” “remains,” “estimated,” “underway,” “filed,” “expects,” “submitted,” “can,” “on track,” or similar expressions, 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 this press release 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.

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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.

Important dates

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