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**Roche**

**HY 2016 results**

*Basel, 21 July 2016*

This presentation contains certain forward-looking statements. These forward-looking statements may be identified by words such as 'believes', 'expects', 'anticipates', 'projects', 'intends', 'should', 'seeks', 'estimates', 'future' or similar expressions or by discussion of, among other things, strategy, goals, plans or intentions. Various factors may cause actual results to differ materially in the future from those reflected in forward-looking statements contained in this presentation, among others:

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# Group

*Severin Schwan  
Chief Executive Officer*



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## HY 2016 performance

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## Outlook

# HY 2016: Highlights

## Growth

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**Sales** • Group sales +5%<sup>1</sup>

**Profit** • +5% Core EPS growth<sup>1</sup>

## Portfolio progress Q2

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**Oncology** • Cancer immunotherapy: Tecentriq launched in bladder cancer (US), filed in lung cancer (US, EU)

• Venclexta launched in US (CLL 17p del)

**Hematology** • Gazyva: Phase III (GALLIUM) in iNHL, met primary endpoint at interim

• Gazyva: Phase III (GOYA) in aNHL, not superior to MabThera/Rituxan

• Emicizumab (ACE 910): Ph III in patients with FVIII inhibitors fully recruited

**Neuroscience** • OCREVUS: Filings accepted in EU and US; PDUFA date Dec 28, 2016

**Immunology** • Actemra: Ph III in giant cell arteritis met primary end point

• Xolair: Paediatric approved in US

**Diagnostics** • Launch of cobas e801, high throughput immunodiagnostics analyser

<sup>1</sup> All growth rates at constant exchange rates (CER)

# Investing into a growing business

## First Half 2016

- Launches off to a good start
  - Pharma: Cotellic, Alecensa, Venclexta, Tecentriq
  - Dia platforms: cobas e801, Ventana HE600
- Substantial investment into new business
  - Pharma: - **5 NME launches in a year**
    - investments in cancer immunotherapies
  - Dia: Investments in molecular diagnostics solutions
  - Expansion of biologics manufacturing network
- Benefit from PSI\* (CHF 426m)

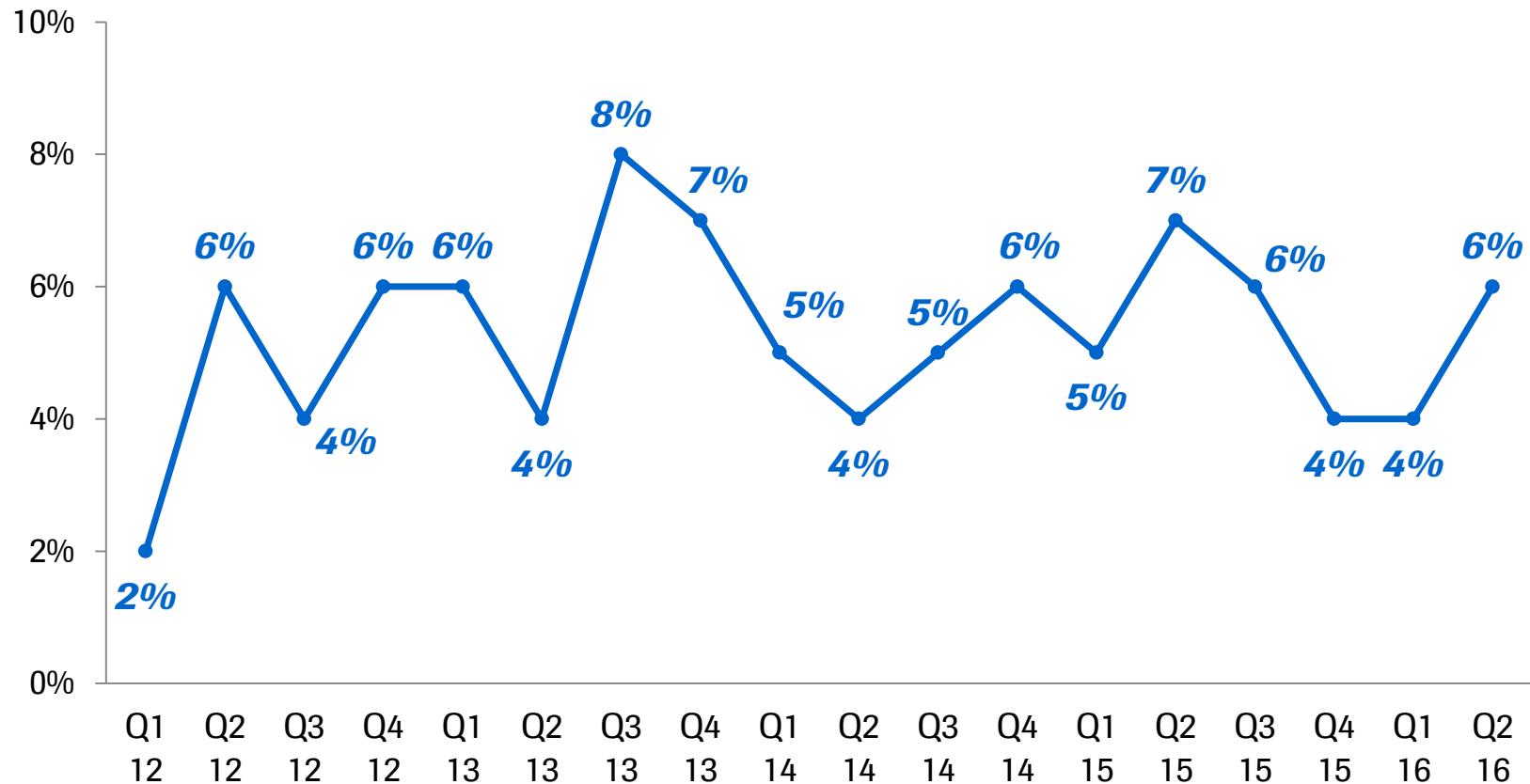
## Outlook Full Year 2016

- One-off PSI\* effect diluted on full year basis; positive base effect on costs H2 2015
- Ongoing productivity measures
- Core EPS growth > sales growth

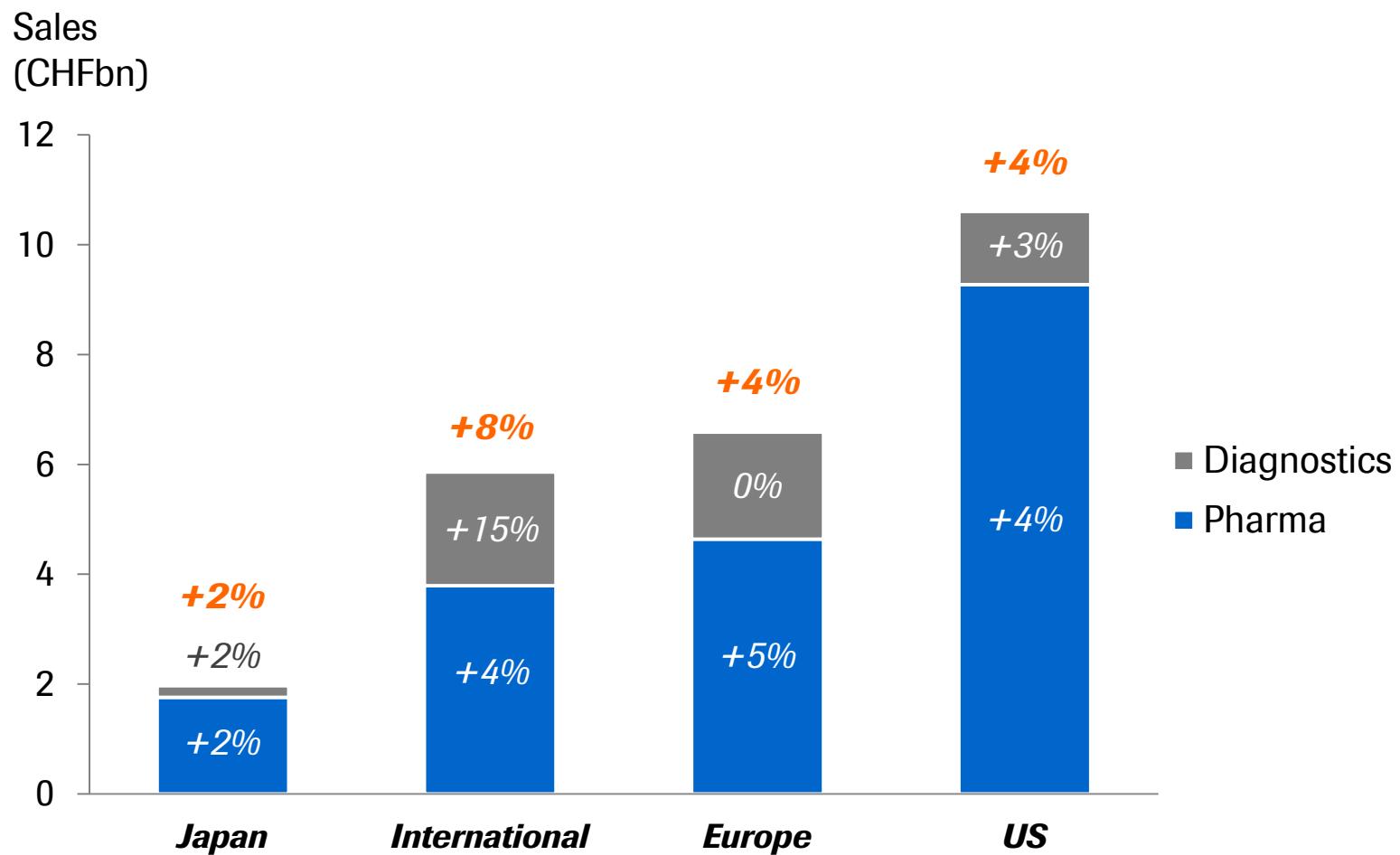
# HY 2016: Strong sales growth in both divisions

	HY 2016 CHFbn	HY 2015 CHFbn	Change in % CHF	CER
<b>Pharmaceuticals Division</b>	<b>19.5</b>	18.4	6	4
<b>Diagnostics Division</b>	<b>5.6</b>	5.2	6	6
<b>Roche Group</b>	<b>25.0</b>	23.6	6	5

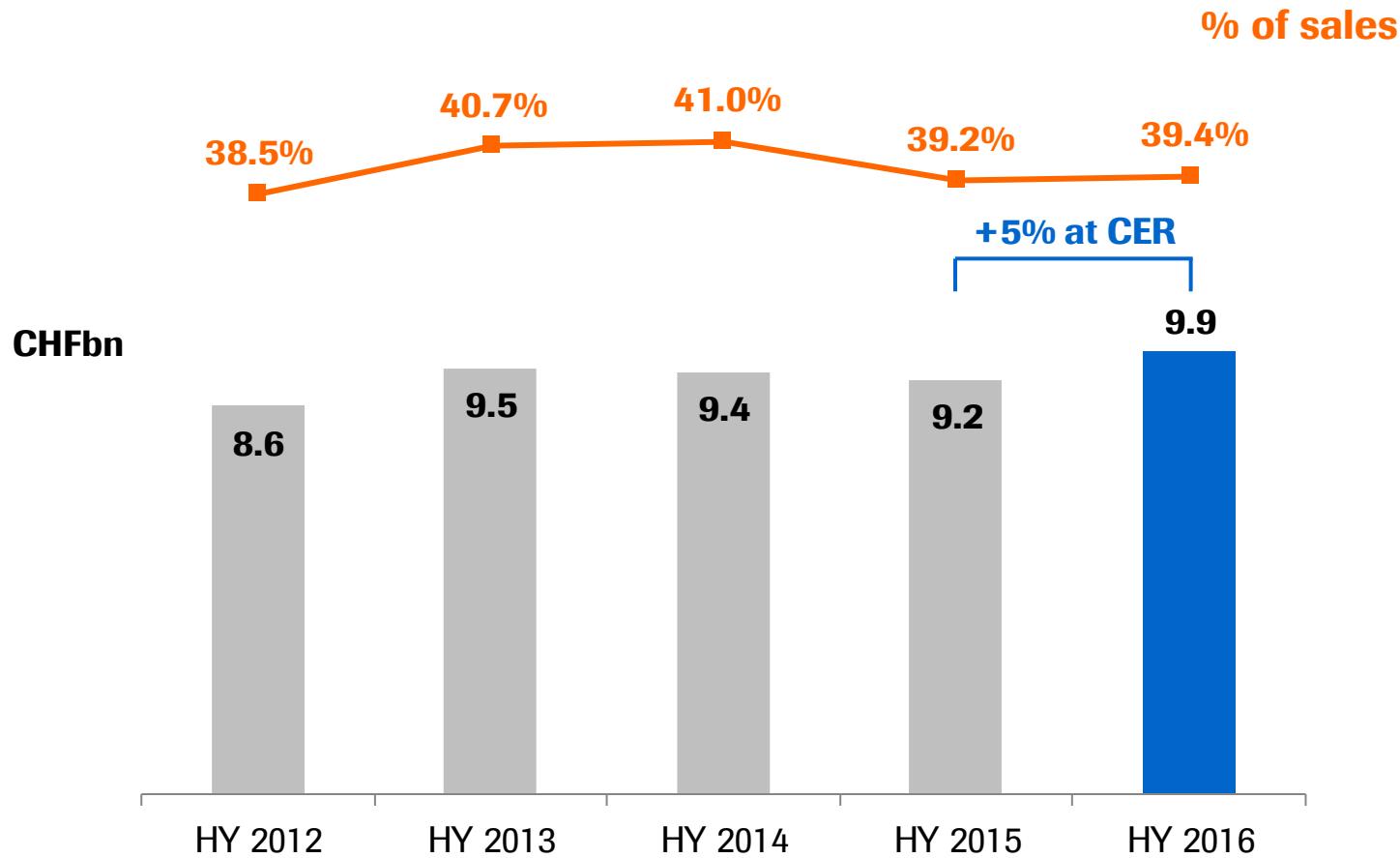
# Q2 2016: Sales growth for fifth consecutive year



# HY 2016: Strong sales growth in all regions

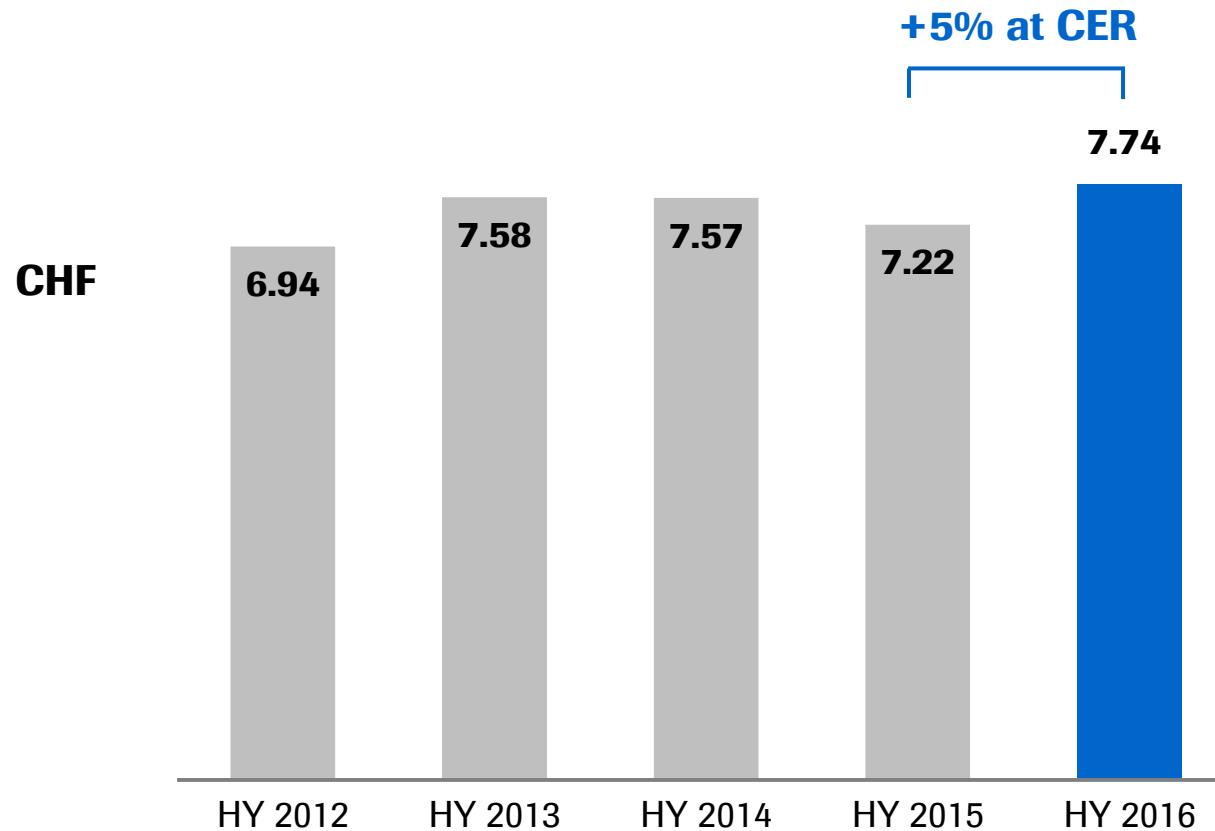


# HY 2016: Strong core operating profit & margin



CER=Constant Exchange Rates

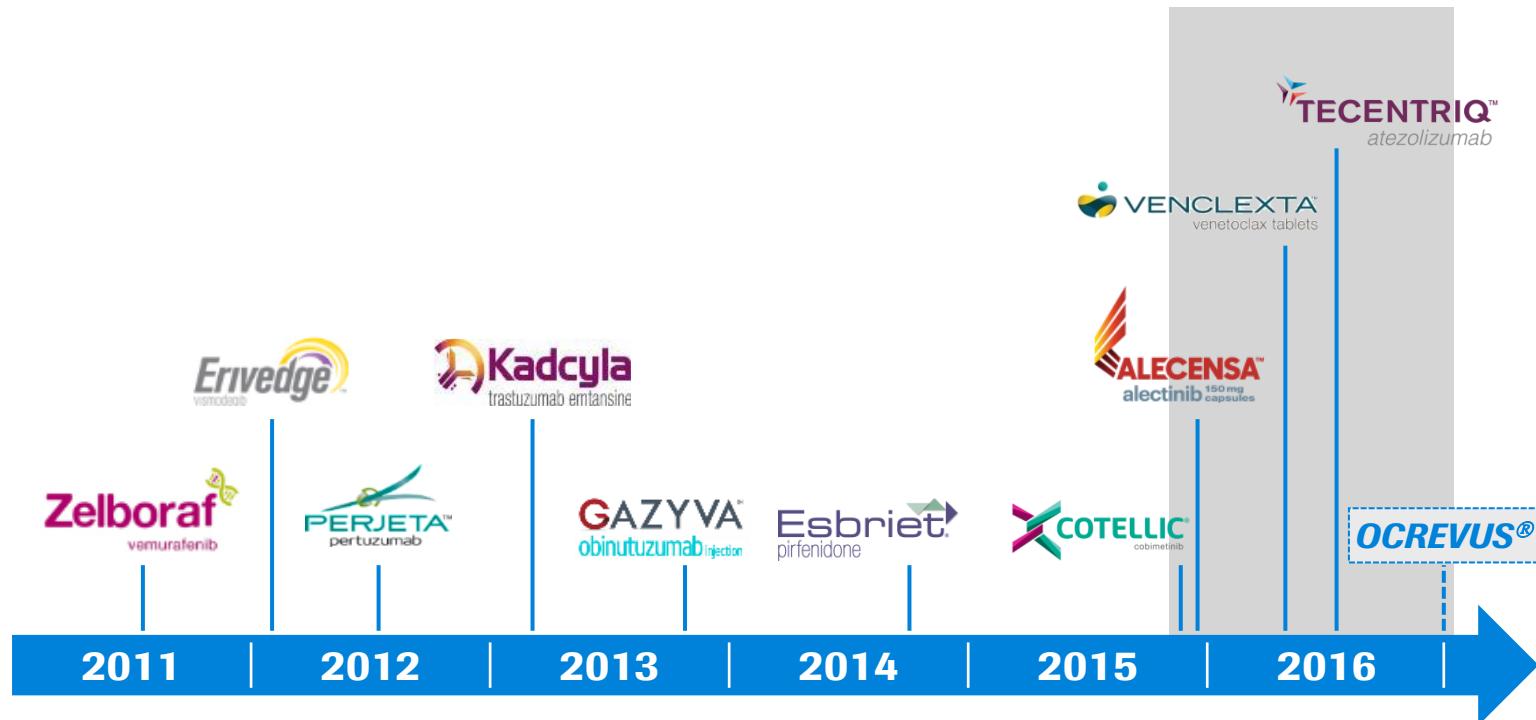
# HY 2016: Core EPS growth above sales growth



# Continued leadership in innovation

## *Launches at historical high*

**5 NME launches in a year**





# Roche significantly advancing patient care

## *Recognition for innovation 2013-present*

**12** *Breakthrough Therapy Designations*

Rank	Company	#
1	<b>Roche</b>	<b>12</b>
2	Novartis	10
3	BMS	9
4	Merck	6
5	Pfizer	6
6	Abbvie	6

<i>Year</i>	<i>Molecule</i>
<b>2016</b>	<b>Ocrelizumab</b> (PPMS)
	<b>Venclexta</b> (AML)
	<b>Venclexta + Rituxan</b> (R/R CLL)
<b>2015</b>	<b>Actemra</b> (Systemic sclerosis)
	<b>Tecentriq</b> (NSCLC)
	<b>Venclexta</b> (R/R CLL 17p del)
<b>2014</b>	<b>Emicizumab/ACE 910</b> (Hemophilia A)
	<b>Esbriet</b> (IPF)
	<b>Lucentis</b> (Diabetic retinopathy)
<b>2013</b>	<b>Tecentriq</b> (Bladder)
	<b>Alecensa</b> (2L ALK+ NSCLC)
	<b>Gazyva</b> (1L CLL)

# Significant launch activities ahead

	2016	2017	2018
Pharma	<b>Venclexta</b> R/R CLL with 17p del	<b>OCREVUS</b> RMS / PPMS	<b>Lampalizumab</b> Geographic atrophy
	<b>Cotellic + Zelboraf</b> BRAFmut melanoma	<b>Emicizumab (ACE910)</b> Hemophilia A	<b>Tecentriq+Avastin+chemo</b> 1L NSCLC
	<b>Alecensa</b> 2L ALK+ NSCLC	<b>Perjeta + Herceptin</b> eBC HER2+ (APHINITY)	<b>Tecentriq + Avastin</b> 1L RCC
	<b>Tecentriq</b> 2L+ bladder cancer	<b>Gazyva</b> 1L iNHL (GALLIUM)	<b>Alecensa</b> 1L ALK+ NSCLC
	<b>Tecentriq</b> 2L/3L lung cancer	<b>Actemra</b> Giant cell arteritis	
	<b>Gazyva</b> Refractory iNHL (GADOLIN)		

Diagnostics	cobas e801 launch in immunodiagnostics	cobas t511 cobas t711	cobas 6000 (new)

Oncology/  
hematology    Neuroscience    Ophthalmology    Immunology    FDA Breakthrough  
Therapy Designation

# 2016 outlook

## Group sales growth<sup>1</sup>

Low to mid-single digit

## Core EPS growth<sup>1</sup>

Ahead of sales growth

## Dividend outlook

Further increase dividend in Swiss francs

<sup>1</sup> At Constant Exchange Rates (CER)

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# Pharmaceuticals Division

*Daniel O'Day*  
*CEO Roche Pharmaceuticals*



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## **HY 2016 results**

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**Innovation**

**Outlook**

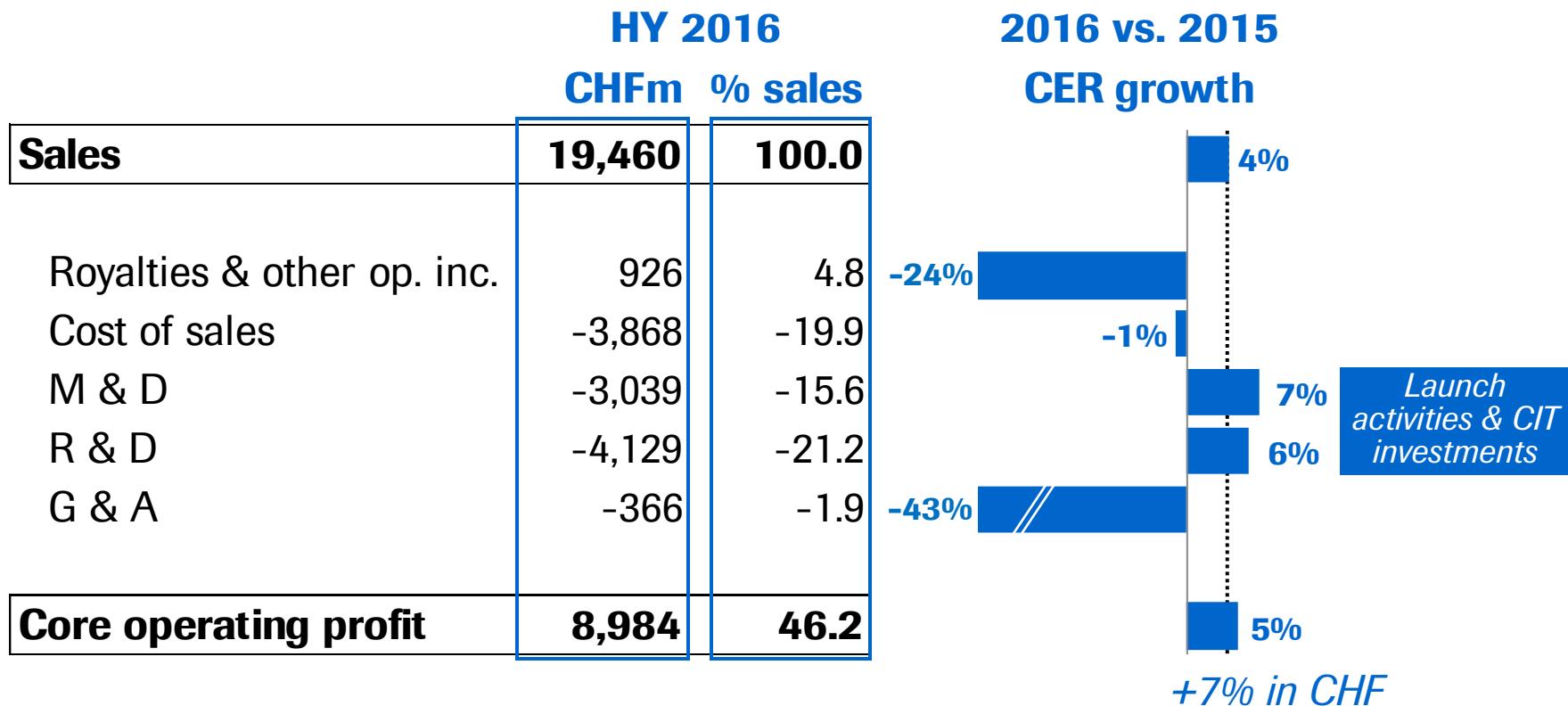
# HY 2016: Pharma sales

## *Good growth in all regions*

	HY 2016	HY 2015	Change in %	
	CHFm	CHFm	CHF	CER
<b>Pharmaceuticals Division</b>	<b>19,460</b>	<b>18,350</b>	<b>6</b>	<b>4</b>
United States	9,273	8,586	8	4
Europe	4,639	4,291	8	5
Japan	1,756	1,540	14	2
International	3,792	3,933	-4	4

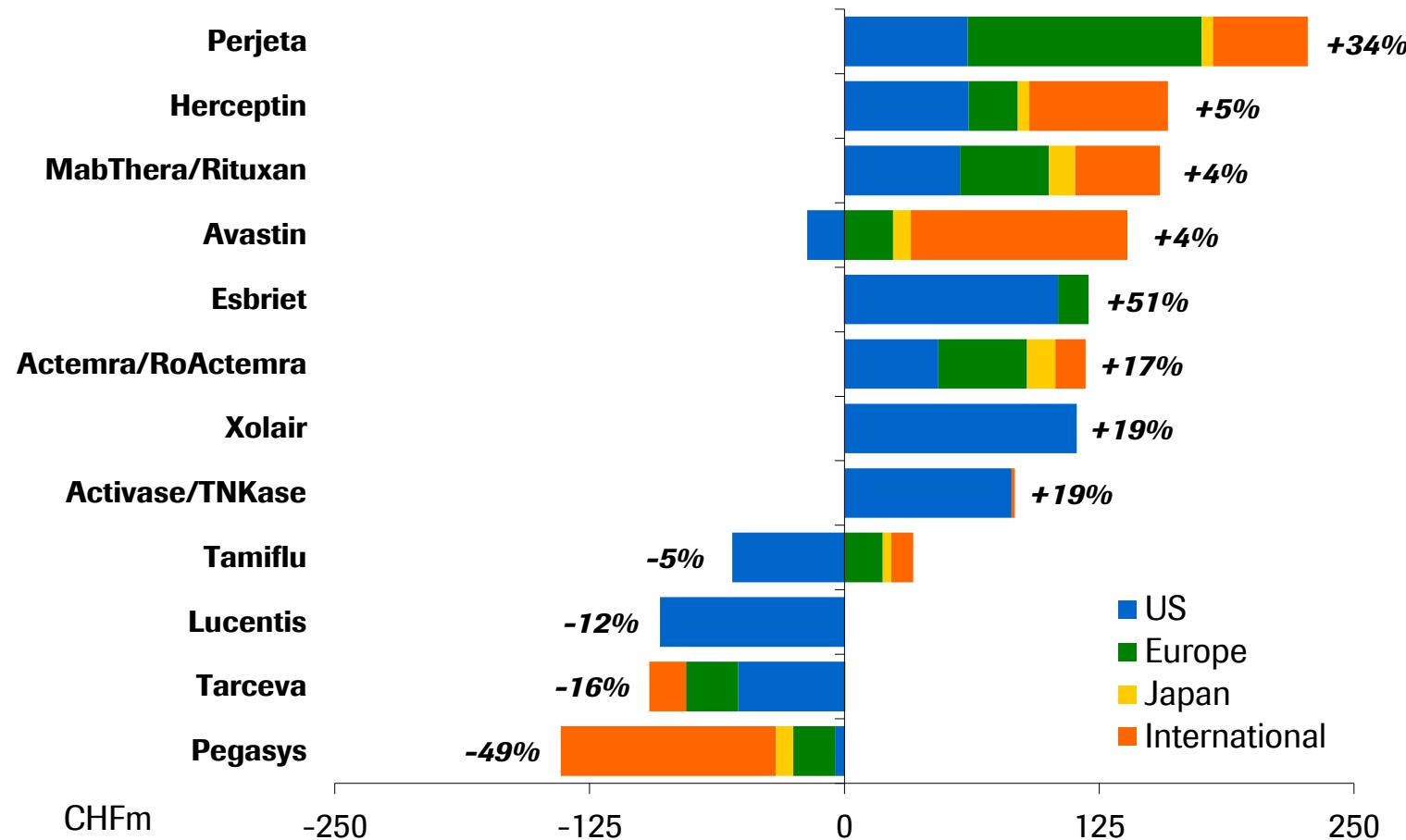
# HY 2016: Pharma Division

*Core operating profit growth +5%*



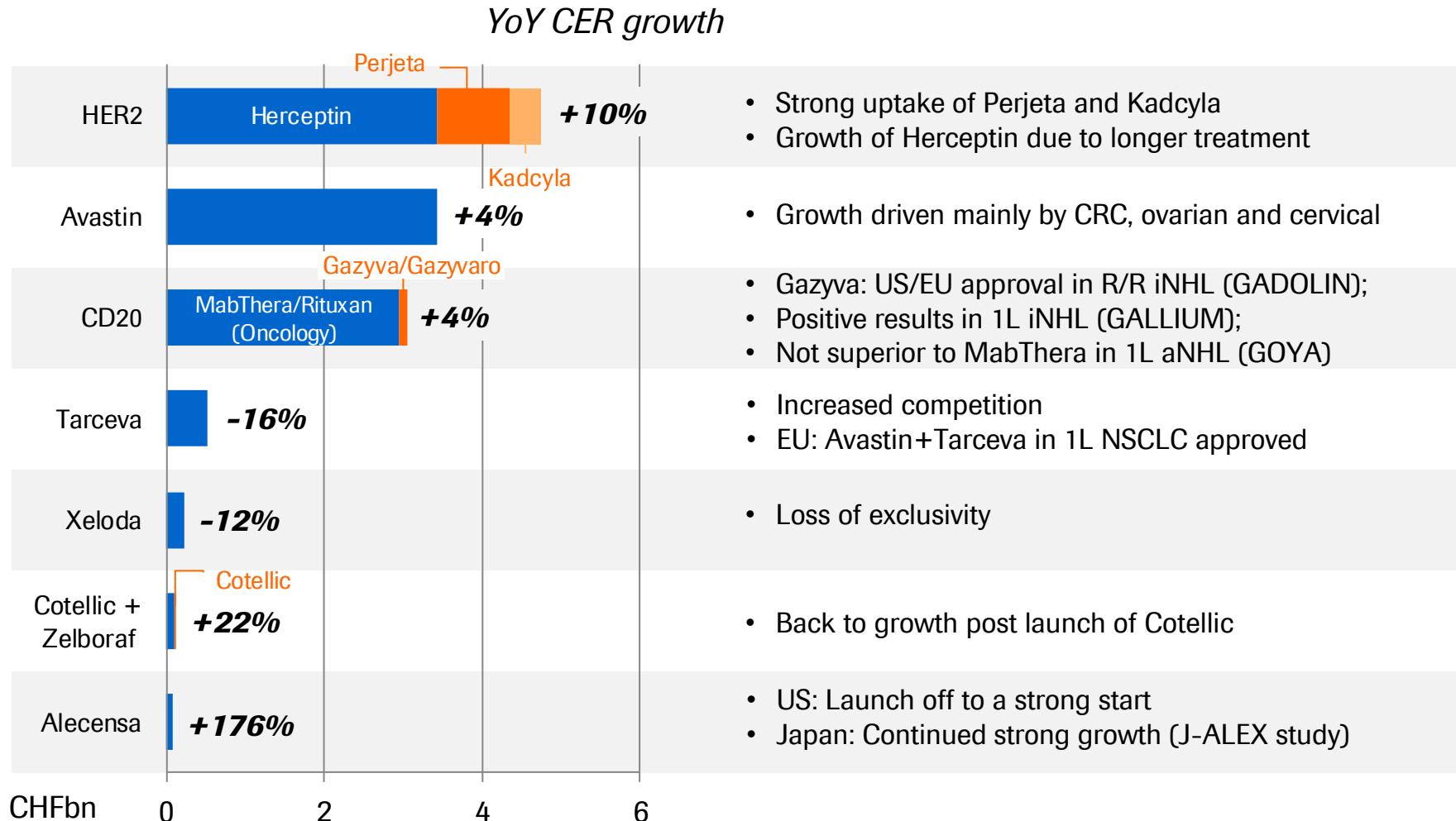
CER=Constant Exchange Rates; CIT=cancer immunotherapy

# HY 2016: Strong performance from oncology and immunology franchises



Absolute values and growth rates at Constant Exchange Rates (CER)

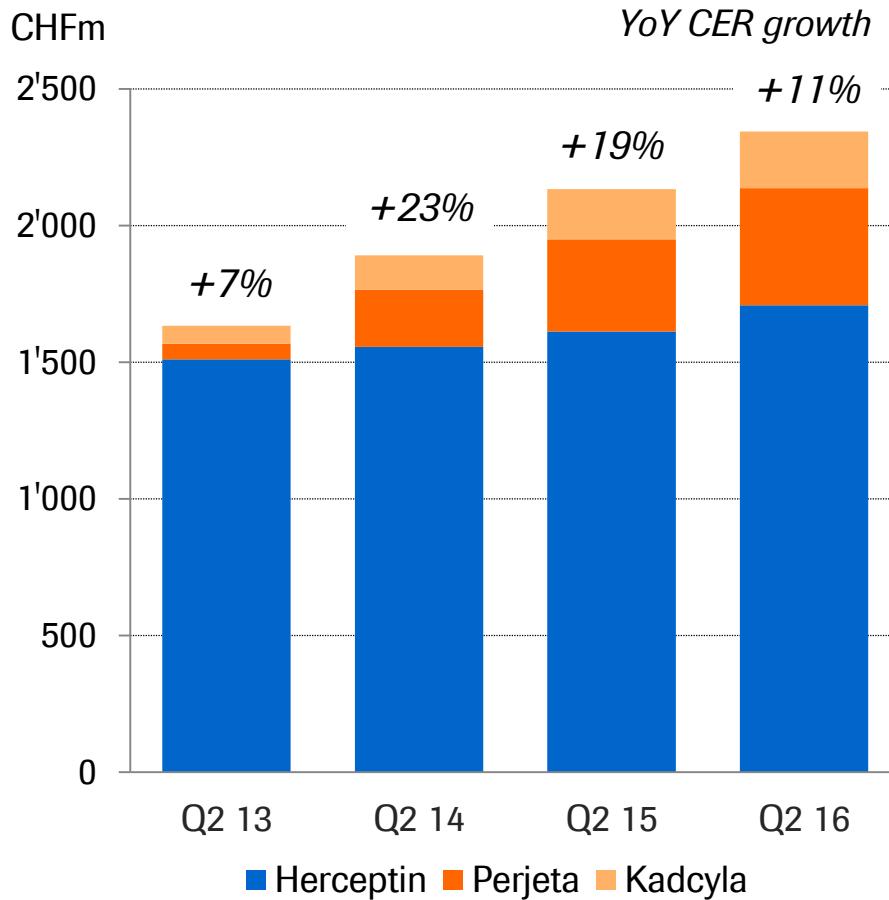
# HY 2016: Oncology launches off to a good start



CER=Constant Exchange Rates

HY 2016 Oncology sales: CHF 12.4bn; CER growth +5%

# HER2 franchise: Growth driven by Perjeta with Herceptin



## HER2 franchise Q2 2016

- Perjeta (+35%): Strong demand due to ongoing neoadjuvant uptake in the EU
- Herceptin (+5%): Longer treatment duration in combo with Perjeta
- Kadcyla (+10%): Growth driven by all regions

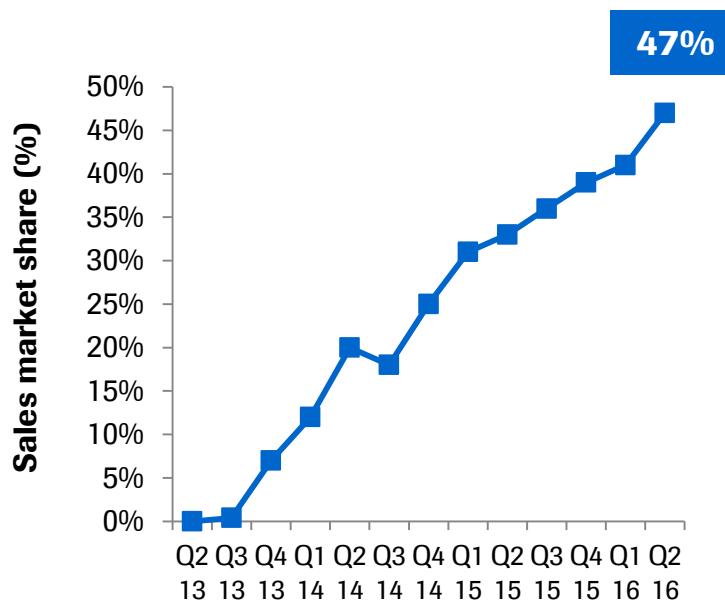
## Outlook 2016

- Herceptin: Further SC conversion
- Perjeta: Further increasing penetration
- Kadcyla: New launch countries
- Ph III APHINITY (adj. HER2+ BC) expected

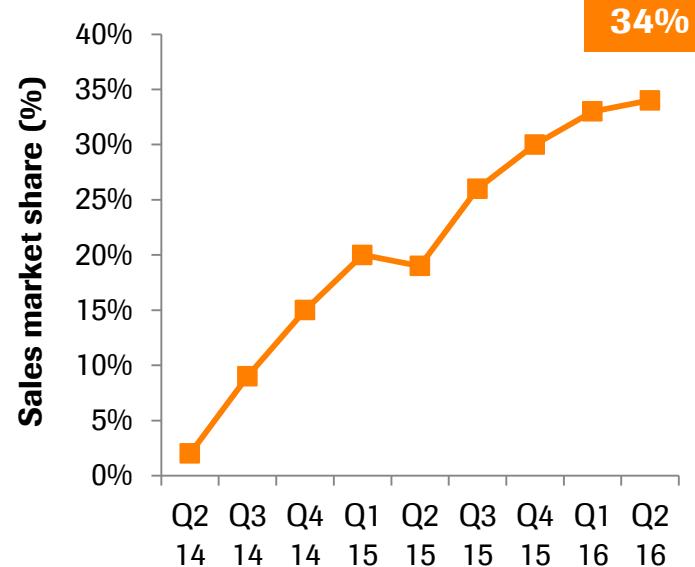
# SC conversion rates for Herceptin and MabThera

*Herceptin conversion rate approaching 50%*

**SC share of Herceptin sales in launched countries\***

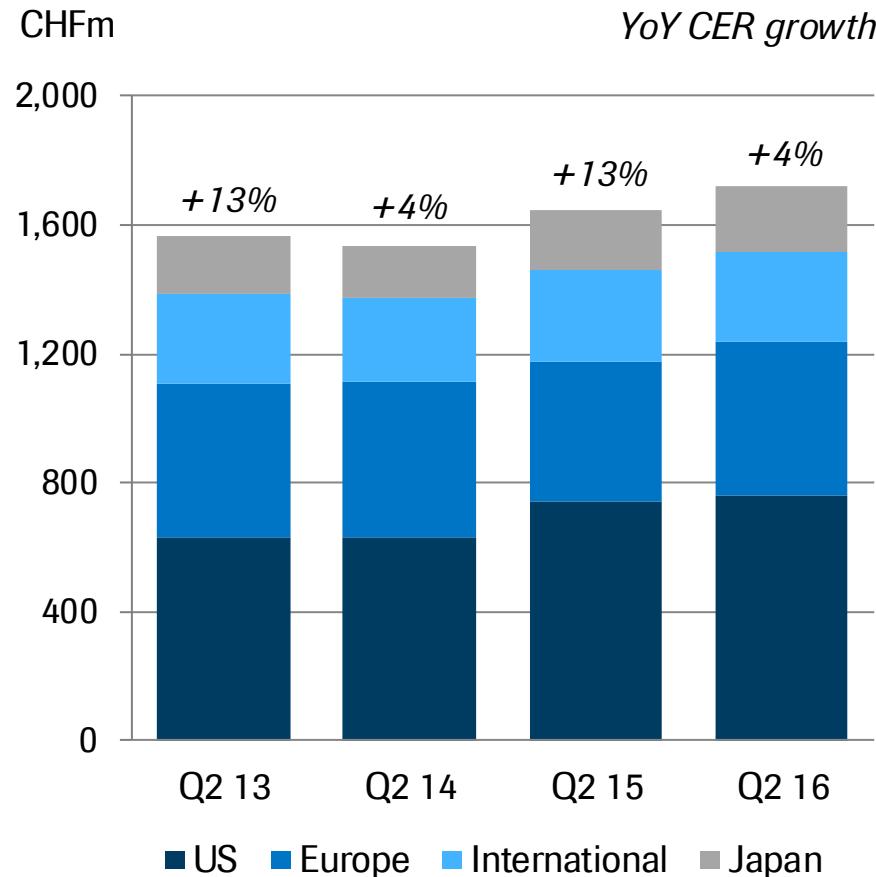


**SC share of MabThera sales in launched countries\***



\* Conversion rate charts exclude latest launch countries: Herceptin SC has been launched in 53 countries (Q1/16 launches in Argentina, Mexico and Hong Kong excluded); MabThera SC has been launched in 16 countries (Q1/16 launch in Spain excluded)

# Avastin: International and Europe drive growth



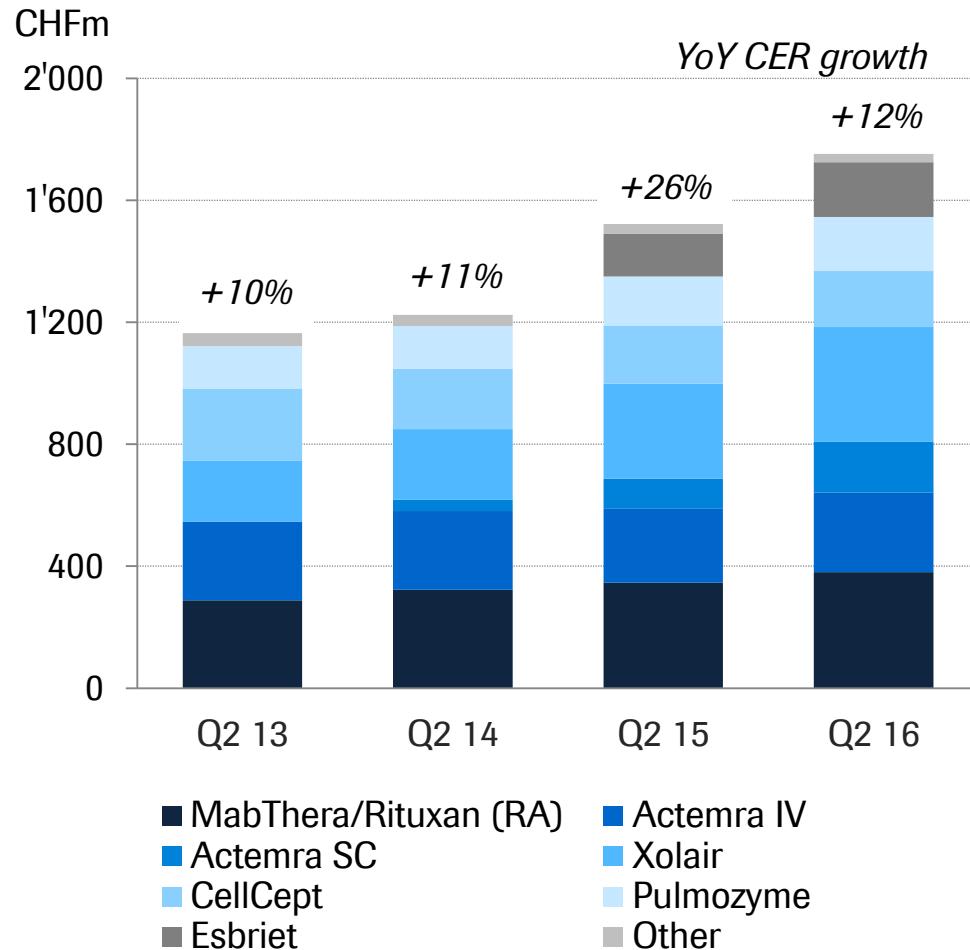
## Avastin Q2 2016

- Lung cancer: Driven by positive launch in China, and A+T in Europe
- Cervical and ovarian cancer: Strong growth in Europe
- Mesothelioma: Filing discussions underway

## Outlook 2016

- Continued uptake in ovarian, cervical and lung cancer (A+T in EU)

# Immunology: Franchise approaching CHF 8bn sales annualised



## Immunology Q2 2016

### Xolair (+17%)

- Continued strong uptake in allergic asthma & chronic idiopathic urticaria
- Paediatrics approval in asthma (US)

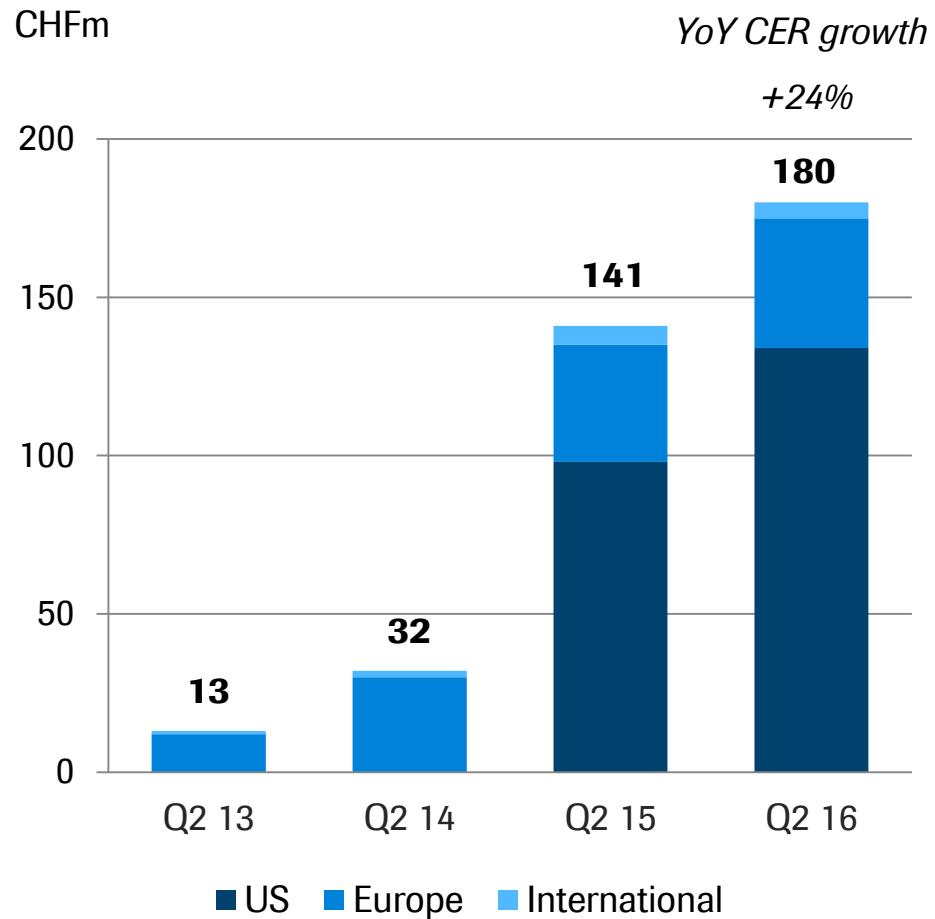
### Actemra (+21%)

- Increasing 1L monotherapy leadership focusing on MTX intolerant patients
- Positive Ph3 results in giant cell arteritis

### MabThera/Rituxan (+6%)

- Continues to grow in rheumatoid arthritis and vasculitis (GPA and MPA)

# Esbriet: Focus on mild and moderate patient segments



## US (+32%)

- Growth driven by continued penetration into more severe patient segments

## EU (+9%)

- Increasing differentiation due to strengthened label including the pooled 1 year mortality data

## Outlook 2016

- Targeting mild and moderate patient segments

## **HY 2016 results**

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## **Innovation**

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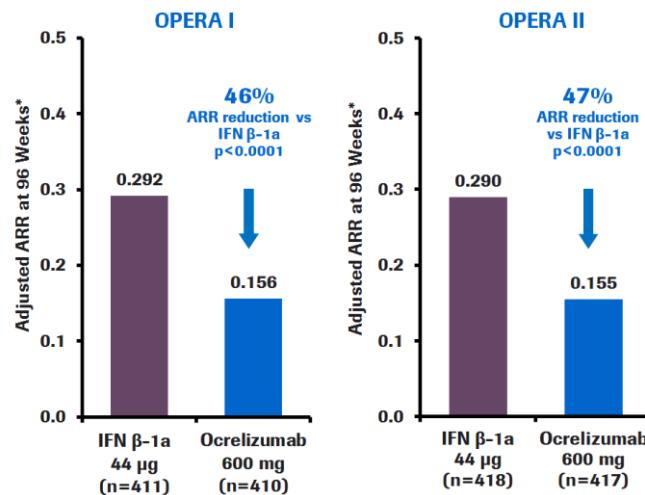
## **Outlook**

# Ocrelizumab: FDA granted priority review for BLA

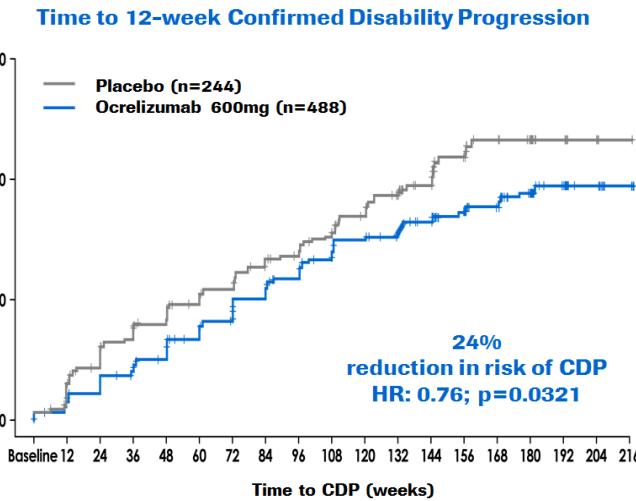
## *First drug active in both RMS & PPMS*



### Phase III (OPERA I/II) in RMS



### Phase III (ORATORIO) in PPMS

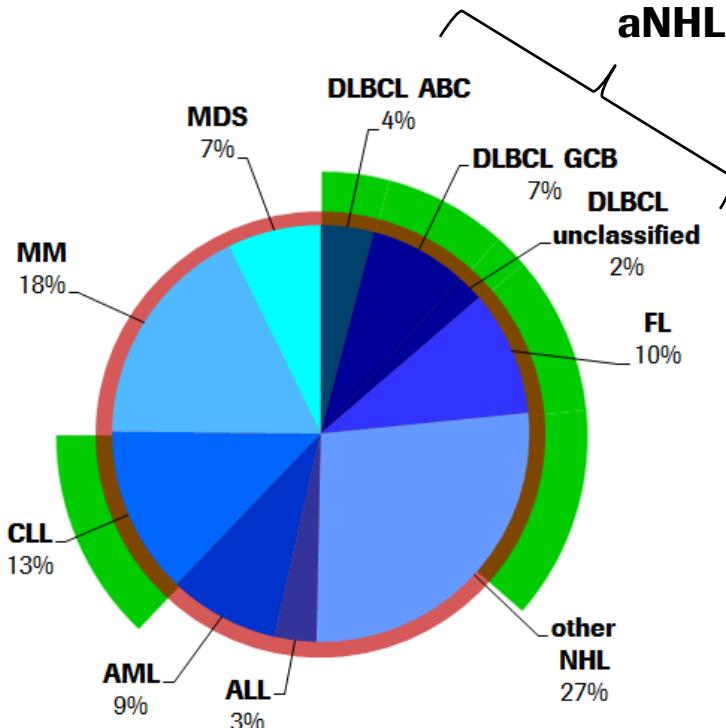


- Marketing applications for OCREVUS (ocrelizumab) in RMS and PPMS accepted by EMA and FDA
- PDUFA date: December 28<sup>th</sup>

BLA=biologic license application; BTD=breakthrough therapy designation; RMS=relapsing forms of multiple sclerosis (MS) which includes patients with RRMS and SPMS with superimposed relapses; RRMS=relapsing-remitting MS; SPMS=secondary progressive MS; PPMS=primary progressive MS; Adapted from Lublin 1996, Arnold 2004

# Hematological cancers

*Incidence cases reach 330,000 patients<sup>1</sup>*



= Roche marketed



= Roche in development

**GAZYVA™**  
obinutuzumab injection

**Rituxan®**  
Rituximab

**VENCLEXTA™**  
venetoclax tablets

**TECENTRIQ™**  
atezolizumab FOR ADVANCED NSCLC ONLY

**aCD20/CD3 TCB**

**polatuzumab vedotin  
(anti-CD79b ADC)**

**idasanutlin  
(MDM2 antagonist)**

**LSD1 inhibitor**

**MDM2 antagonist  
prodrug**

<sup>1</sup> Datamonitor; incidence rates includes the 7 major markets (US, Japan, France, Germany, Italy, Spain, UK); NHL=non-hodgkin's lymphoma; DLBCL (aNHL)=diffuse large B-cell lymphoma; FL (iNHL)=follicular lymphoma; ALL=acute lymphoblastic leukemia; AML=acute myeloid leukemia; CLL=chronic lymphoid leukemia; MM=multiple myeloma; MDS=myelodysplastic syndrome; Venclexta in collaboration with AbbVie; Cotellic in collaboration with Exelixis; Gazyva in collaboration with Biogen; polatuzumab vedotin in collaboration with Seattle Genetics; LSD1inhibitor in collaboration with Oryzon Genomics

# Development program in NHL

## *Five new medicines in combination testing*



	<b>Compound</b>	<b>Combination</b>	<b>Study name</b>	<b>Indication</b>	<b>Ph1</b>	<b>Ph2</b>	<b>Ph3</b>
<b>NHL</b>	<b>Gazyva</b>	+bendamustine	<i>GADOLIN</i>	FL (iNHL) (Rituxan refractory)			
	<b>Gazyva</b>	+CHOP	<i>GOYA</i>	1L DLBCL (aNHL)			
	<b>Gazyva</b>	+chemo	<i>GALLIUM</i>	1L FL ( iNHL)			
	<b>Venclexta*</b>	<b>+Rituxan/+Rituxan+bendamustine</b>	<i>CONTRALTO</i>	R/R FL (iNHL)			
	<b>Venclexta</b>	<b>+Rituxan+CHOP/Gazyva+CHOP</b>	<i>CAVALLI</i>	1L DLBCL (aNHL)			
	<b>Venclexta</b>	<b>+Rituxan+bendamustine</b>		R/R NHL			
	<b>Venclexta</b>			R/R CLL and R/R NHL			
	<b>Venclexta</b>	<b>+Gazyva+polatuzumab</b>		R/R DLBCL (aNHL) and R/R FL (iNHL)			
	<b>polatuzumab</b>	<b>+Rituxan/Gazyva</b>	<i>ROMULUS</i>	R/R DLBCL (aNHL) and R/R FL (iNHL)			
	<b>polatuzumab</b>	<b>+Gazyva/Rituxan+bendamustin</b>		R/R DLBCL (aNHL) and R/R FL (iNHL)			
	<b>polatuzumab</b>	<b>+Gazyva+CHP/Rituxan+CHP</b>		1L DLBCL (aNHL)			
	<b>polatuzumab</b>	<b>+Gazyva+lenalidomide</b>		R/R DLBCL (aNHL) and R/R FL (iNHL)			
	<b>Tecentriq</b>	<b>+Gazyva or +tazemetostat**</b>		R/R DLBCL (aNHL) and R/R FL (iNHL)			
	<b>Tecentriq</b>	<b>+Gazyva+lenalidomide</b>		R/R FL (iNHL)			
	<b>Tecentriq</b>	<b>+Gazyva+bendamustine or CHOP</b>		1L FL (iNHL) and 1L DLBCL (aNHL)			
	<b>Tecentriq</b>	<b>+Gazyva+polatuzumab</b>		R/R DLBCL (aNHL) and R/R FL (iNHL)			
	<b>idasanutlin</b>	<b>+Gazyva</b>		R/R DLBCL (aNHL) and R/R FL (iNHL)			

iNHL=indolent non-hodgkin's lymphoma; aNHL=agressive NHL; CHOP=cyclophosphamide, doxorubicin, vincristine and prednisone; \* Venclexta in collaboration with AbbVie; Gazyva in collaboration with Biogen; polatuzumab in collaboration with Seattle Genetics; \*\*External collaboration

# Development program in CLL, MM, AML, MDS

## *High unmet need in many indications*



	<b>Compound</b>	<b>Combination</b>	<b>Study name</b>	<b>Indication</b>	<b>Ph1</b>	<b>Ph2</b>	<b>Ph3</b>
<b>CLL</b>	<b>Gazyva</b>	+chemo	<i>CLL11</i>	CLL			
	<b>Gazyva</b>	+FC/bendamustine/Cib	<i>GREEN</i>	CLL and R/R CLL			
	<b>Venclexta</b>	<b>+Rituxan</b>		R/R CLL and SLL			
	<b>Venclexta</b>	<b>+Gazyva</b>	<i>CLL14</i>	CLL			
	<b>Venclexta</b>	<b>+Rituxan</b>	<i>MURANO</i>	R/R CLL			
	<b>Venclexta</b>			R/R CLL 17p			
	<b>Venclexta</b>			R/R CLL after ibru/idel			
	<b>Venclexta</b>	<b>+Rituxan+bendamustine</b>		R/R CLL and untreated CLL			
	<b>Venclexta</b>	<b>+Gazyva</b>		R/R CLL and untreated CLL			
<b>MM</b>	<b>Venclexta</b>			R/R MM			
	<b>Venclexta</b>	<b>+bortezomib+dexamethasone</b>		R/R MM			
	<b>Tecentriq</b>	<b>+/-daratumumab** or +/-lenalidomide or +lenalidomide+daratumumab</b>		R/R MM			
	<b>Venclexta</b>			AML			
<b>AML</b>	<b>Venclexta</b>	<b>+decitabine/+azacitidine</b>		AML			
	<b>Venclexta</b>	<b>+Cotellic +idasanutlin</b>		R/R AML unfit for chemo			
	<b>LSD1 inhibitor</b>			AML			
	<b>idasanutlin</b>	<b>+cytarabine</b>		R/R AML			
	<b>MDM2 ant. prodrug</b>			AML			
<b>MDS</b>	<b>Tecentriq</b>	<b>+azacitidine</b>		MDS			
	<b>aCD20/CD3 TCB</b>			Hematologic tumors			

CLL=chronic lymphoid leukemia; R/R CLL=relapsed/refractory CLL; MM=multiple myeloma; AML=acute myeloid leukemia; FC=fludarabine, cyclophosphamide; LaAraC=low dose cytarabine; \* Venclexta in collaboration with AbbVie; Gazyva in collaboration with Biogen; Cotellic in collaboration with Exelixis; \*\*External collaboration

# Tecentriq off to a good start

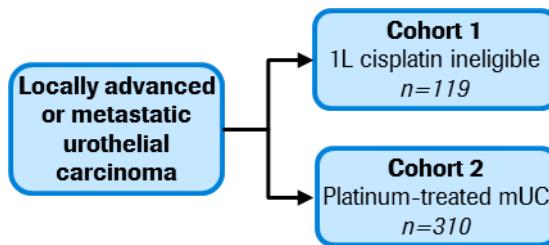
## *All-comers label in 2L+ bladder cancer*



June 3-7, 2016  
McCormick Place | Chicago, Illinois  
#ASCO16



### IMvigor210 study design



Cohort 1	IC2/3 (n = 32)	IC1/2/3 (n = 80)	all (n = 119)
ORR	28%	25%	24%
CR	6%	6%	7%
PR	22%	19%	17%

**approved**

Cohort 2	IC2/3 (n = 100)	IC1/2/3 (n = 207)	all (n = 310)
ORR	28%	19%	16%
CR	15%	9%	7%

- First and only aPD-L1 approved for locally advanced or metastatic bladder cancer
- First sales of CHF 19m recorded
- Update at ESMO for both cohort 1 (1L) and cohort 2 (2L+)

# CIT development program by tumor type

## Solid tumors

### Solid tumors

Tecentriq		Ph1
Tecentriq	± chemo ± Avastin	Ph1
Tecentriq	+ Cotellic	Ph1
aOX40	± Tecentriq	Ph1
aCEA/CD3 TCB	± Tecentriq	Ph1
IDOi	± Tecentriq	Ph1
emactuzumab	± Tecentriq	Ph1
aCEA-IL2v FP	± Tecentriq	Ph1
aFAP-IL2v FP		Ph1
aCD40	± Tecentriq	Ph1
emactuzumab	± aCD40	Ph1
aCD40	+ vanucizumab	Ph1
Tecentriq	+ vanucizumab	Ph1
aTIGIT	± Tecentriq	Ph1
Tecentriq	+ daratumumab*	Ph1
Tecentriq	+ IFN or ipilimumab*	Ph1
Tecentriq	+ A2Ai*	Ph1
Tecentriq	+ varlilumab*	Ph1

### Bladder

Tecentriq (2L+ UBC)	✓
Tecentriq + BCG (NMIBC)	Ph1
Tecentriq (2L+ UBC)	Ph3
Tecentriq (Dx+ adjuvant MIBC)	Ph3
Tecentriq + chemo (1L mUC)	Ph3

✓ = approved; \*External collaborations; Other CIT NMEs besides Tecentriq

### Lung (NSCLC & SCLC)

Tecentriq	(2L/3L)	Ph2 filed/ <b>Ph3</b>
Tecentriq	(1L Dx+)	<b>Ph3</b>
Tecentriq	+ chemo (3x 1L trials)	<b>Ph3</b>
Tecentriq	+ chemo ± Avastin (1L)	<b>Ph3</b>
Tecentriq	(adjuvant)	<b>Ph3</b>
Tecentriq	+ Tarceva or Alecensa	Ph1
Tecentriq	+ chemo (SCLC)	<b>Ph3</b>
Tecentriq	+ epacadostat*	Ph1

### Melanoma

Tecentriq	+ Zelboraf ± Cotellic	Ph1
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### Ovarian

Tecentriq	+ rucaparib*	Ph1
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### Hematological tumors

Tecentriq	± lenalidomide	± daratumumab*	(R/R MM)	Ph1
Tecentriq	± azacitidine		(MDS)	Ph1
Tecentriq	+ Gazyva or + tazemetostat*		(R/R FL and DLBCL)	Ph1
Tecentriq	+ Gazyva	+ polatuzumab	(R/R FL and DLBCL)	Ph2
Tecentriq	+ Gazyva	+ lenalidomide	(R/R FL and DLBCL)	Ph1
Tecentriq	+ Gazyva	+ bendamustine or CHOP	(1L FL and DLBCL)	Ph1
aCD20/CD3 TCB				Ph1
Tecentriq	+ CD19 CAR-T*		(refractory aNHL)	Ph1

### Breast (TNBC & HER2+)

Tecentriq	+ chemo (TNBC)	<b>Ph3</b>
Tecentriq	+ Kadcyla or Herceptin+ Perjeta (HER2+)	Ph1
Tecentriq	+ T-VEC*	Ph1
Tecentriq	+ entinostat*	Ph2

### RCC

Tecentriq	± Avastin	Ph2
Tecentriq	+ Avastin	<b>Ph3</b>

### Sarcoma

Tecentriq	+ CMB305 (NY-ESO-1)*	Ph2
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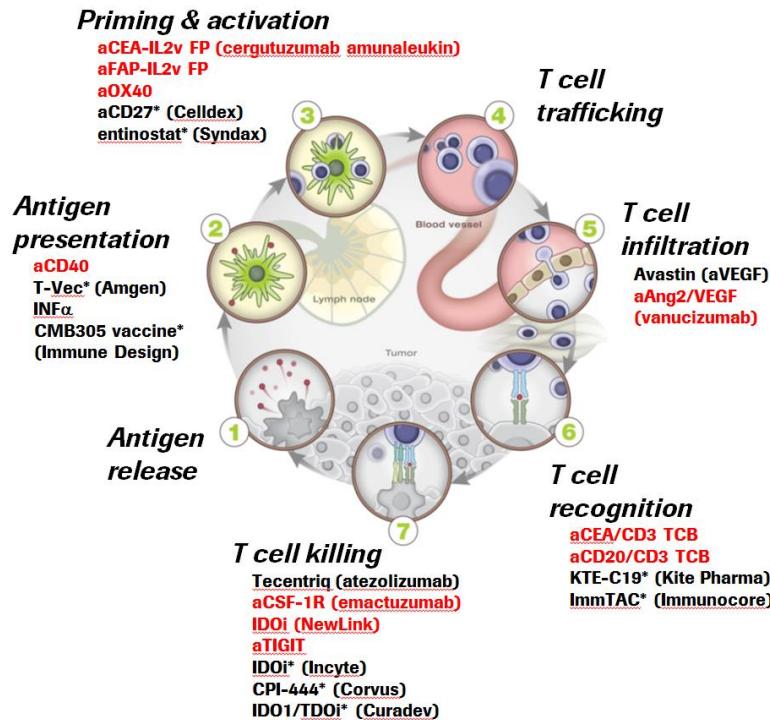
### Colon

Tecentriq	+ Cotellic (3L+)	<b>Ph3</b>
Tecentriq	+ T-VEC*	Ph1

As of July 21, 2016

# CIT portfolio with 10 NMEs

*First read-outs for all NMEs expected in 2016/2017*



	Compound 1	Compound 2	Phase	Readout**
2	aCD40	+ Tecentriq	Ph I (n=110)	2017
	aCD40	+ vanucizumab	Ph I (n=170)	2017
	aCD40	+ emactuzumab	Ph I (n=120)	2017
3	aCEA-IL2v FP	+ Tecentriq	Ph I (n=75)	2017
	aFAP-IL2v FP		Ph I (n=60)	2017
5	aOX40		Ph I (n=400)	2017
	aOX40	+ Tecentriq	Ph I (n=360)	2017
6	vanucizumab		Ph II McCave (n=190)	2016
	vanucizumab	+ Tecentriq	Ph I (n=40)	2017
7	aCEA/CD3 TCB		Ph I (n=100)	2017
	aCEA/CD3 TCB	+ Tecentriq	Ph I (n=100)	2017
6	aCD20/CD3 TCB		Ph I (n=170)	2017
	emactuzumab	+ Tecentriq	Ph I (n=162)	2017
7	IDO1	+ Tecentriq	Ph I (n=224)	2017
	aTIGIT	+ Tecentriq	Ph I (n=300)	2017

Chen and Mellman. Immunity 2013;

\* CIT NMEs from partners in external collaborations; \*\* Outcome studies are event driven, timelines may change;  
NME=new molecular entity; CIT=cancer immunotherapy; FP=fusion protein; TCB=T-cell bispecific;

## H1 2016 results

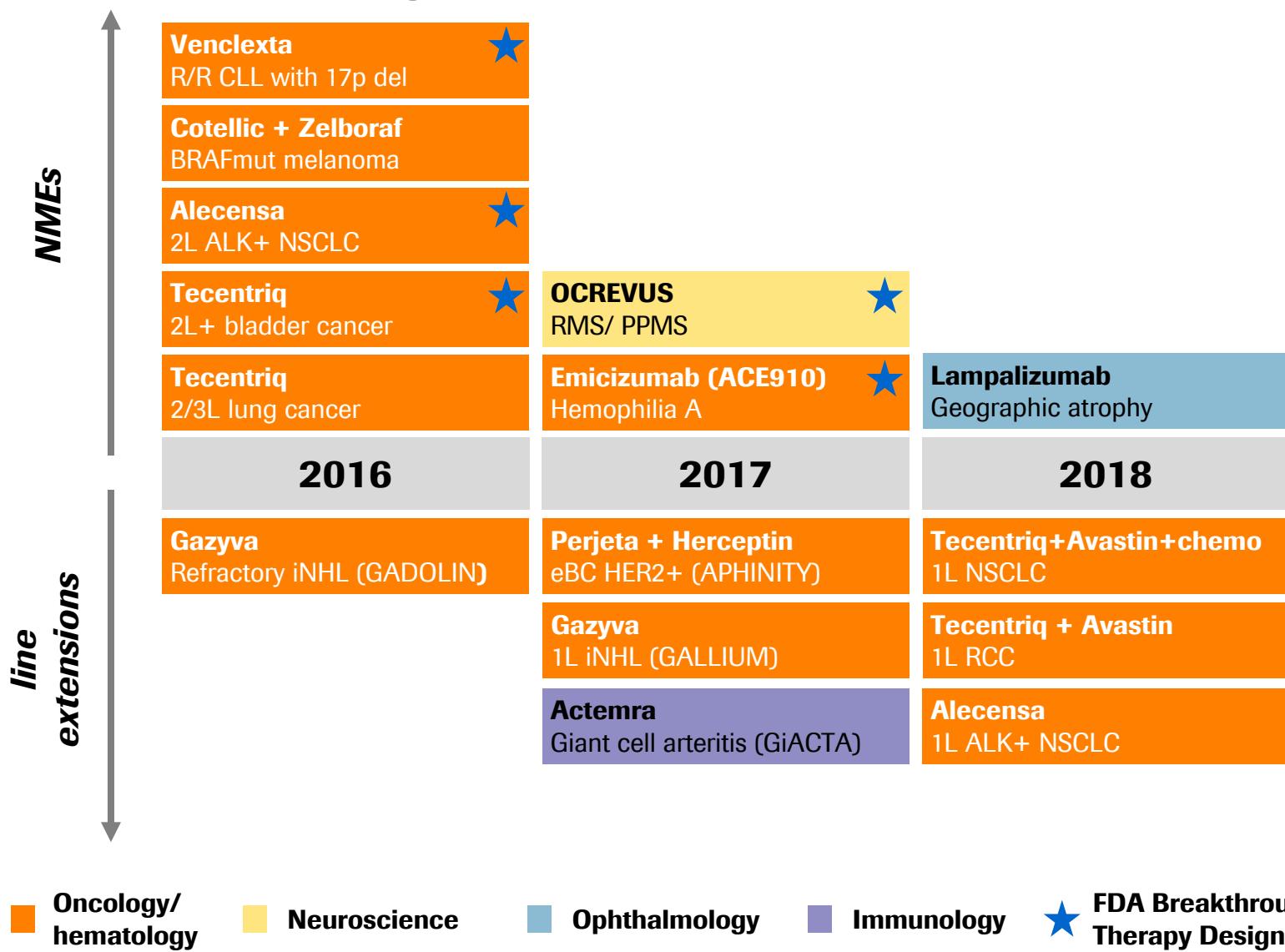
### Innovation

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### Outlook

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# 2016 onwards: Significant launch activities



Outcome studies are event-driven: timelines may change. Standard approval timelines of 1 year assumed.



# Additional key oncology presentations in 2016\*



Copenhagen, 7-11 Oct

- **Tecentriq + Zelboraf + Cotellic:** Ph1 in 1L BRAF+ mM
- **Tecentriq:** Ph II update (*IMvigor 210*) in bladder cancer
- **Tecentriq:** Ph I in SCLC
- **Tecentriq:** Ph I in ovarian cancer
- **Tecentriq:** Ph III (*OAK*) in 2L NSCLC (*or IASLC*)
- **Tecentriq + Cotellic:** Ph 1 in CRC
- **ipatasertib:** Ph II (*A.Martin*) in 2L CRPC



American Society of Hematology  
Helping hematologists conquer blood diseases worldwide

San Diego, 3-6 Dec

- **Gazyva:** Ph III (*GOYA*) in 1L DLBCL (aNHL)
- **Gazyva:** Ph III (*GALLIUM*) in 1L FL (iNHL)
- **polatuzumab + Gazyva:** Ph II (*ROMULUS*) in R/R FL / DLBCL
- **polatuzumab + Gazyva + CHP:** Ph I in NHL
- **polatuzumab + Rituxan + CHP:** Ph I/II in 1L DLBCL (aNHL)
- **polatuzumab + Gazyva/Rituxan + bendamustin:** Ph I/II in R/R DLBCL (aNHL) and R/R FL (iNHL)
- **Venclexta + Rituxan +/- bedamustin:** Ph II (*CONTRALTO*) in R/R FL
- **Venclexta + Gazyva :** Ph III safety run-in in 1L CLL
- **Biomarker** data in MM and FL examining immune environment



Vienna, 4-7 Dec

- **Tecentriq:** Ph II 1L update (*BIRCH*) in PDL1+NSCLC
- **Tecentriq + Tarceva:** Ph I in NSCLC



San Antonio, 6-10 Dec

- **taselisib:** Ph II in mHER2-/ER+ BC

# 2016: Key late-stage news flow

	<b>Compound</b>	<b>Indication</b>	<b>Milestone</b>	
<b>Regulatory</b>	<b>Gazyva</b>	Rituxan-refractory iNHL	US/EU approval	✓
	<b>Venclexta</b>	R/R CLL with 17p deletion	US approval	✓
	<b>OCREVUS</b>	RMS/PPMS	US/EU filing	✓
	<b>Tecentriq</b>	Bladder cancer	US approval	✓
	<b>Tecentriq</b>	2/3L NSCLC	US approval	
	<b>Alecensa</b>	2L ALK+ NSCLC	EU CHMP opinion	
<b>Phase III readouts*</b>	<b>lebrikizumab</b>	Severe asthma	Ph III LAVOLTA I/II	✗
	<b>Tecentriq</b>	2/3L NSCLC	Ph III OAK	
	<b>Gazyva</b>	1L aNHL	Ph III GOYA	✗
	<b>Gazyva</b>	1L FL (iNHL)	Ph III GALLIUM	✓ new
	<b>Perjeta + Herceptin</b>	Adjuvant HER2+ BC	Ph III APHINITY	
	<b>Actemra</b>	Giant cell arteritis	Ph III GiACTA	✓
	<b>Alecensa</b>	1L ALK+ NSCLC	Ph III ALEX	early 2017
	<b>lebrikizumab</b>	Atopic dermatitis	Ph II TREBLE, ARBAN	data in-house
	<b>Tecentriq</b>	Bladder cancer	Ph II IMvigor 210 (1L)	✓
<b>Phase II readouts*</b>	<b>Tecentriq + Avastin</b>	1L Renal cancer	Ph II IMMOTION 150	
	<b>Venclexta + Rituxan</b>	R/R FL (iNHL)	Ph II CONTRALTO	
	<b>Venclexta + Rituxan/Gazyva</b>	1L aNHL	Ph II CAVALLI	✓

\* Outcome studies are event driven, timelines may change

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## Diagnostics Division

*Roland Diggelmann*  
*CEO Roche Diagnostics*



# HY 2016: Diagnostics Division sales

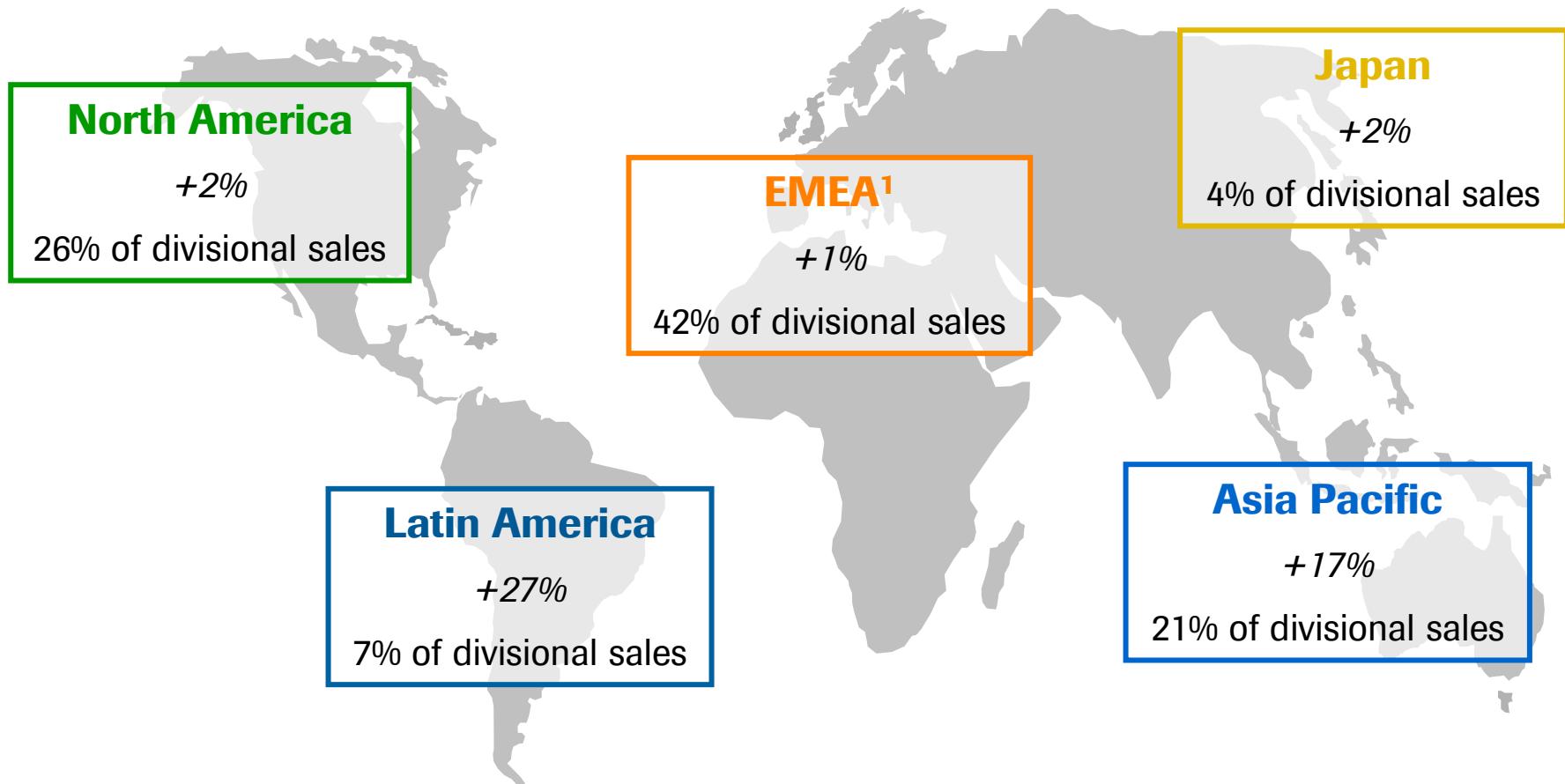
## *Growth driven by laboratory businesses*

	HY 2016	HY 2015	Change in %	
	CHFm	CHFm	CHF	CER
<b>Diagnostics Division</b>	<b>5,562</b>	<b>5,235</b>	<b>6</b>	<b>6</b>
Professional Diagnostics	3,233	2,972	9	9
Diabetes Care	998	1,057	-6	-4
Molecular Diagnostics	903	832	9	8
Tissue Diagnostics	428	374	14	12

CER=Constant Exchange Rates; Underlying growth of Molecular Diagnostics excluding sequencing business: +2%

# HY 2016: Diagnostics regional sales

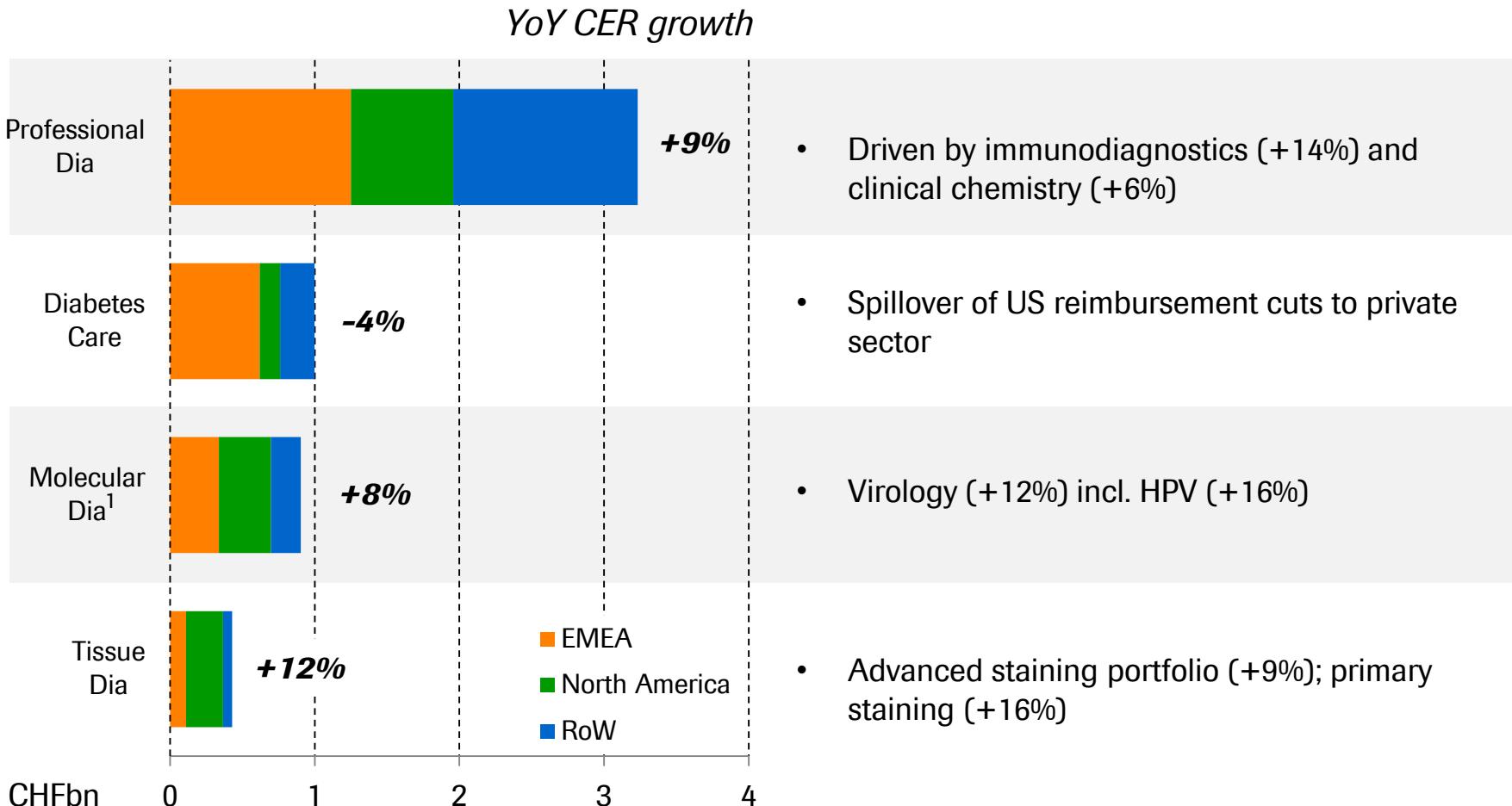
## *Growth contribution by all regions*



<sup>1</sup> Europe, Middle East and Africa; <sup>2</sup> Brazil, China, India, Mexico, Russia, South Korea, Turkey  
All growth rates at Constant Exchange Rates

# HY 2016: Diagnostics highlights

## *Growth driven by immunodiagnostic products*



<sup>1</sup> Underlying growth of Molecular Diagnostics excluding sequencing business: +2%  
CER=Constant Exchange Rates; EMEA=Europe, Middle East and Africa

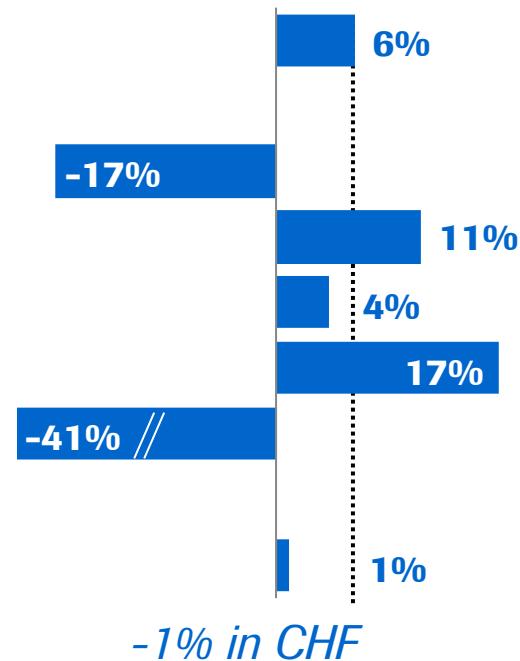
# HY 2016: Diagnostics Division

*Core operating profit growth impacted by new product launches, investments in R&D*

	HY 2016	
	CHFm	% sales
<b>Sales</b>	<b>5,562</b>	<b>100.0</b>
Royalties & other op. inc.	60	1.1
Cost of sales	-2,560	-46.1
M & D	-1,270	-22.8
R & D	-651	-11.7
G & A	-134	-2.4
<b>Core operating profit</b>	<b>1,007</b>	<b>18.1</b>

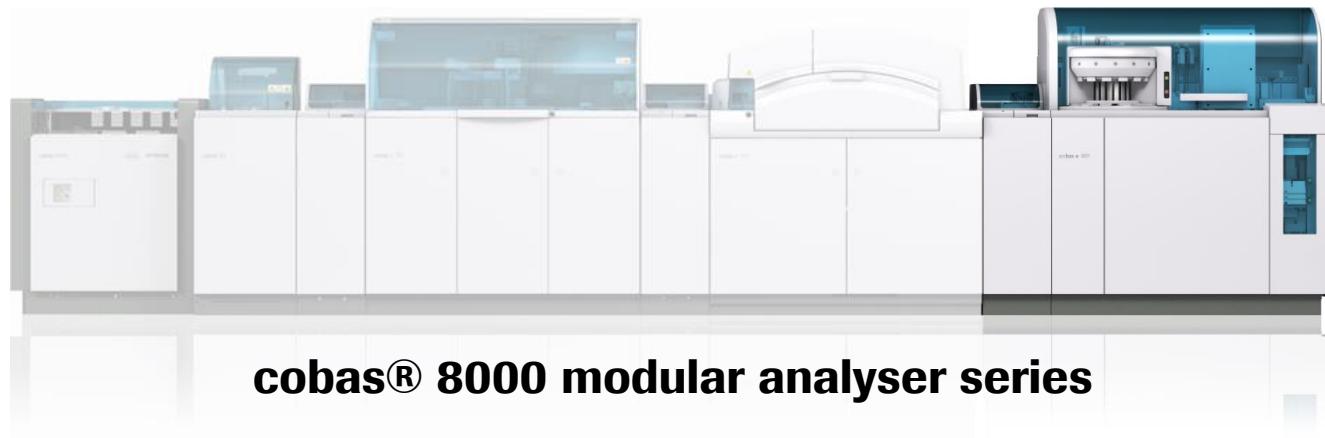
2016 vs. 2015

CER growth



# Launch of cobas e801 immunoassay analyser

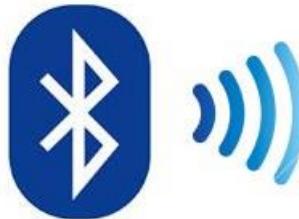
## *Maximising laboratory productivity and efficiency*



- Double throughput with same footprint
- Fastest time to result
- Highest accuracy
- Lower blood sample volume

# Launch of CoaguChek INRange

*First wireless self-testing for patients in VKA<sup>1</sup> therapy*



- **New:** connectivity to healthcare professionals improving patient convenience
- Target market: ~CHF 670m (+5% CAGR)

<sup>1</sup> VKA: vitamin K antagonist

Wan et al (2008). Circ Cardiovasc Qual Outcomes 1:84–91; Bloomfield et al (2011). Ann Int Med 154:472–482

# First liquid biopsy test approved by FDA *cobas EGFR v2 CDx for Tarceva*



- Test can utilise plasma and tissue sample

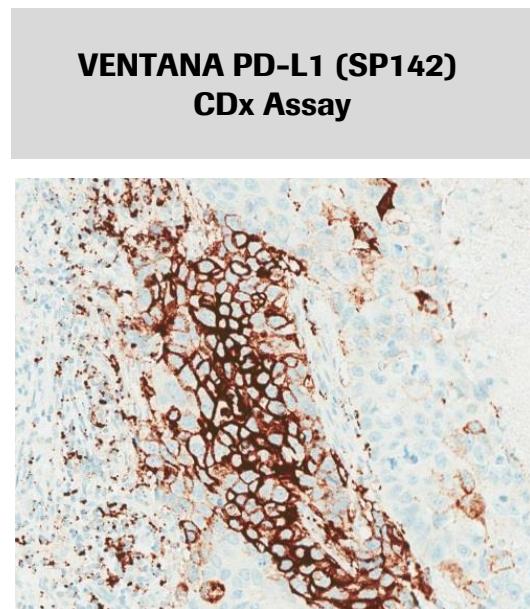


**cobas 4800**

- Leverages cobas 4800 platform

# Immunotherapy diagnostics

## *PD-L1 test approved for bladder cancer*



**BenchMark ULTRA**

- FDA approved SP142 to predict bladder cancer patient response to Tecentriq
- PD-L1 IHC expression shown to correlate with and predict therapeutic outcomes
- Available on BenchMark ULTRA platform: Large global installed base

# Key launches 2016

	<b>Area</b>	<b>Product</b>	<b>Market</b>
Instruments / Devices	<b>Central Laboratory</b>	cobas 8000 <e 801> – high throughput immunochemistry analyzer cobas c 513 – high throughput dedicated HbA1c analyzer	EU ✓ US
	<b>Point of Care</b>	CoaguChek INRange (Zenith) – modified analyzer for intuitive self testing with full blue tooth connectivity	EU ✓
	<b>Sequencing</b>	Roche SMRT Sequencer – single molecule sequencer for clinical research (in collaboration with Pacific Biosciences)	WW
	<b>Diabetes Care</b>	Accu-Chek Guide – next-generation blood glucose monitoring system Accu-Chek Insight CGM – new high-performance continuous glucose monitoring system	EU EU
	<b>Virology</b>	cobas 6800/8800 HIV Qual – early Infant Diagnosis and Confirmatory HIV Test	EU
Tests / Assays	<b>HPV / Microbiology</b>	cobas 6800/8800 CT/NG – fully automated solution for screening and diagnosis of <i>Chlamydia trachomatis</i> and <i>Neisseria gonorrhoeae</i> in symptomatic & asymptomatic patients	EU
	<b>Point of Care</b>	cobas Liat Influenza A/B plus RSV (CLIA) – automated multiplex real time RT-PCR assay for qualitative detection and discrimination of Influenza A virus, Influenza B virus and respiratory syncytial virus (RSV)	US
	<b>Sequencing</b>	ctDNA oncology panels – liquid biopsy for circulating tumor DNA for cancer therapy selection	US
	<b>Companion Diagnostics</b>	PD-L1 (SP142) for Bladder Cancer* – companion diagnostic for atezolizumab PD-L1 (SP142) for NSCLC* – companion diagnostic for atezolizumab	US ✓ US

\* achieve commercial readiness, dependent on Pharma label and approval

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# Finance

*Alan Hippe  
Chief Financial Officer*



# HY 2016: Core EPS growth above sales growth

## ***Business***

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- Strong sales growth of +5%<sup>1</sup> and Core operating profit up +5%<sup>1</sup>
- Core EPS growth +5%<sup>1</sup>

## ***Cash flow***

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- Significant cash generation (Op. FCF of CHF 5.5bn), impact of launch activities
- Increased net debt vs. YE 2015 due to outflow of dividends

## ***Capital markets update – New bond redemption***

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- Final “make-whole” call
  - USD: 857m nominal outstanding (maturity in March 2019) – coupon 6.0% s.a.<sup>2</sup>
    - Loss on redemption of CHF 96m

<sup>1</sup> At Constant Exchange Rates (CER); <sup>2</sup> s.a.=semi-annual coupon

# HY 2016: Group performance

*Core EPS growth +5%*

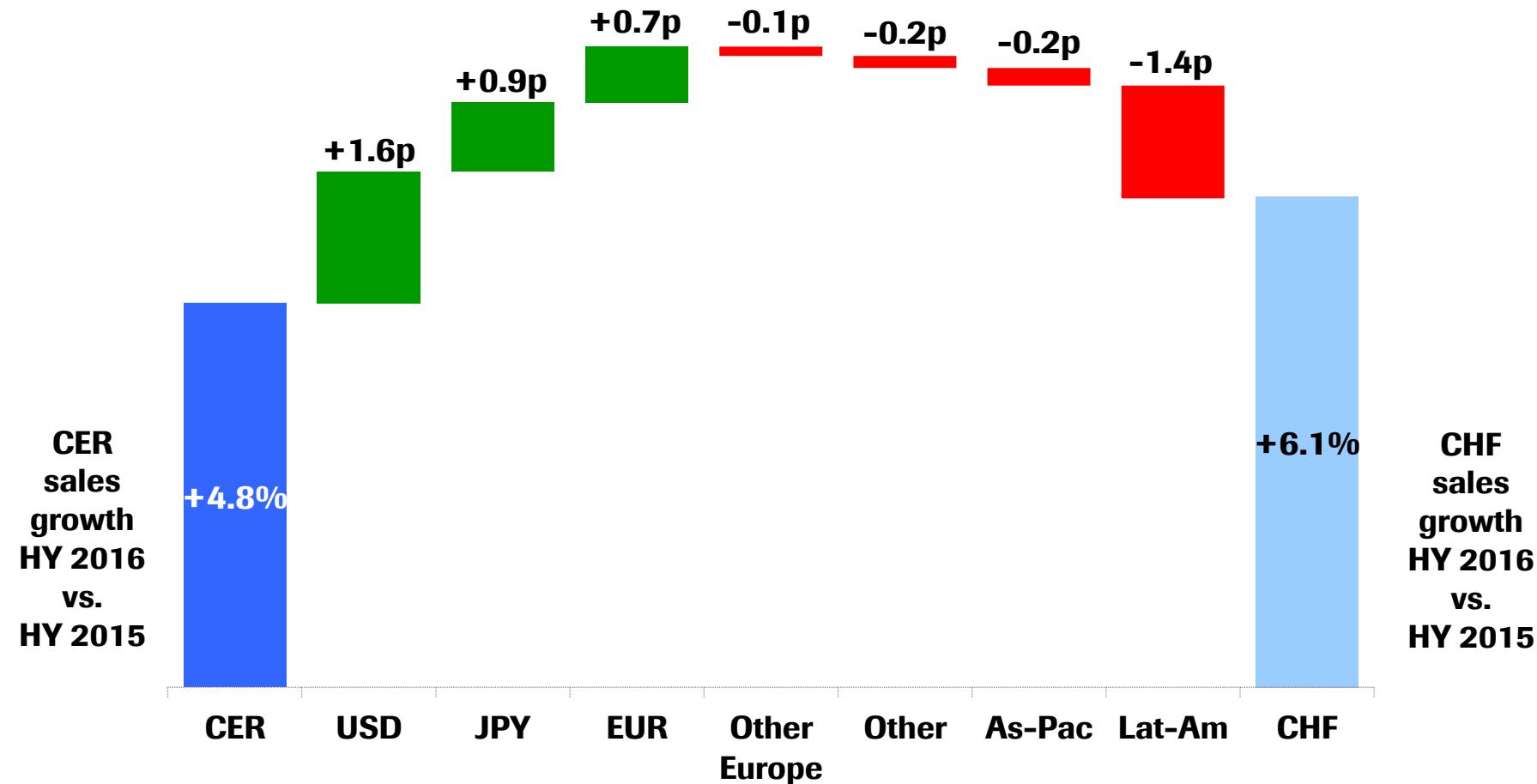
	HY 2016 CHFm	HY 2015 CHFm	Change in % CHF	CER	Excl. PSI*
<b>Sales</b>	<b>25,022</b>	<b>23,585</b>	<b>6</b>	<b>5</b>	
<b>Core operating profit as % of sales</b>	<b>9,854</b> 39.4	<b>9,236</b> 39.2	<b>7</b>	<b>5</b>	<b>0</b>
<b>Core net income as % of sales</b>	<b>6,761</b> 27.0	<b>6,320</b> 26.8	<b>7</b>	<b>5</b>	<b>0</b>
<b>Core EPS (CHF)</b>	<b>7.74</b>	<b>7.22</b>	<b>7</b>	<b>5</b>	<b>0</b>
<b>IFRS net income</b>	<b>5,467</b>	<b>5,249</b>	<b>4</b>	<b>3</b>	
<b>Operating free cash flow as % of sales</b>	<b>5,487</b> 21.9	<b>6,525</b> 27.7	<b>-16</b>	<b>-19</b>	
<b>Free cash flow as % of sales</b>	<b>2,849</b> 11.4	<b>3,966</b> 16.8	<b>-28</b>	<b>-32</b>	

CER=Constant Exchange Rates

\* Past service income; growth rates at CER

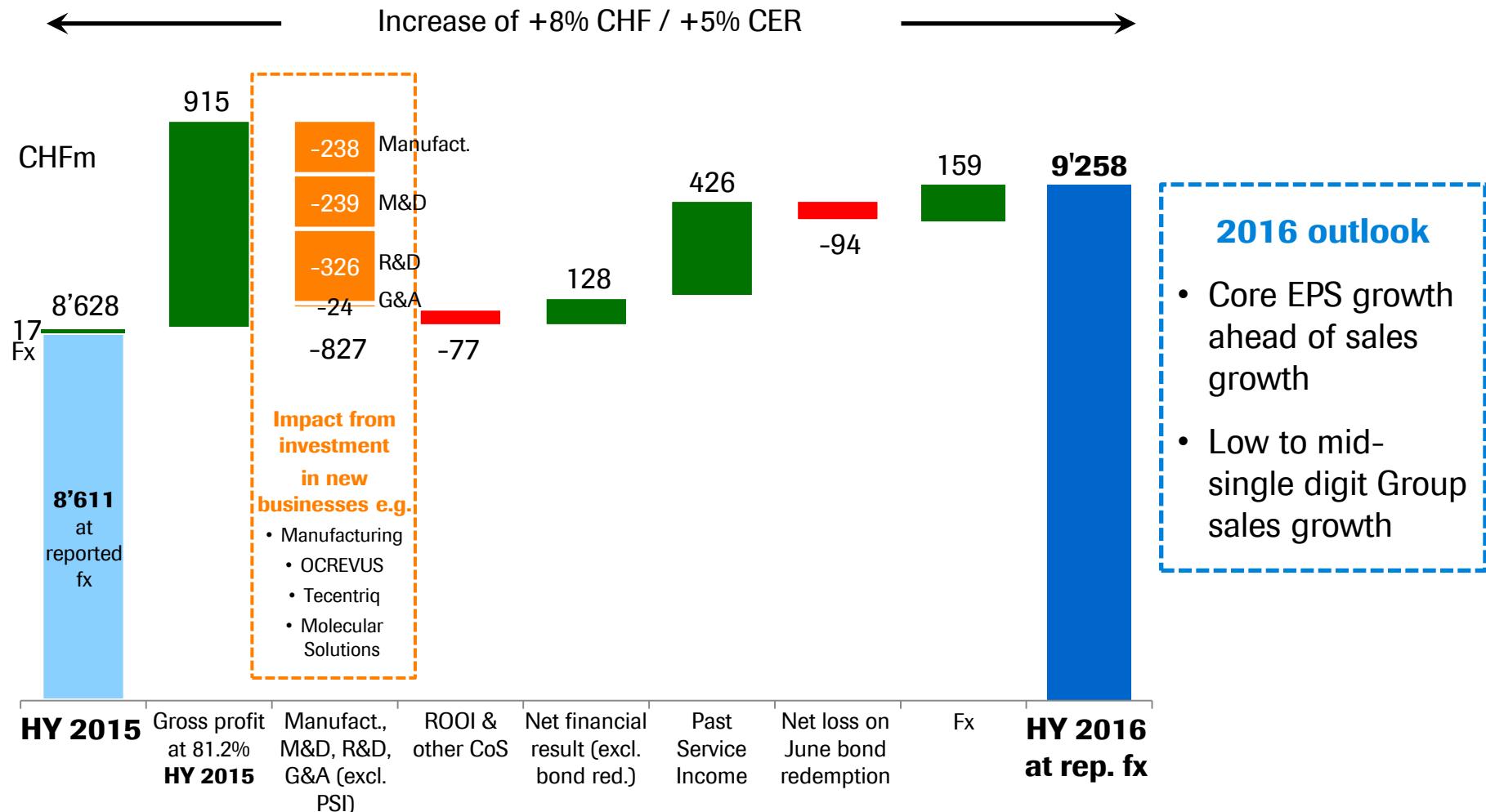
# Exchange rate impact on sales growth

*Positive impact from USD, JPY and EUR*



CER=Constant Exchange Rates

# HY 2016: Core profit before tax +5% CER



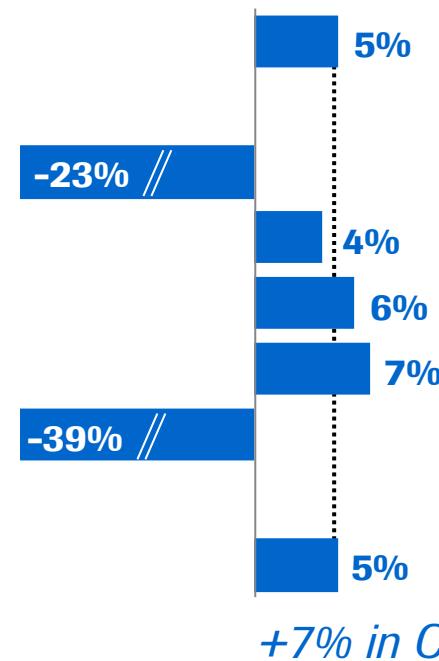
CER=Constant Exchange Rates (average full year 2015)

# HY 2016: Group operating performance

*Core operating profit growth +5%*

	HY 2016	
	CHFm	% sales
<b>Sales</b>	<b>25,022</b>	<b>100.0</b>
Royalties & other op. inc.	986	3.9
Cost of sales	-6,428	-25.7
M & D	-4,309	-17.2
R & D	-4,780	-19.1
G & A	-637	-2.5
<b>Core operating profit</b>	<b>9,854</b>	<b>39.4</b>
$\text{PSI}^* = +426$		

2016 vs. 2015  
CER growth

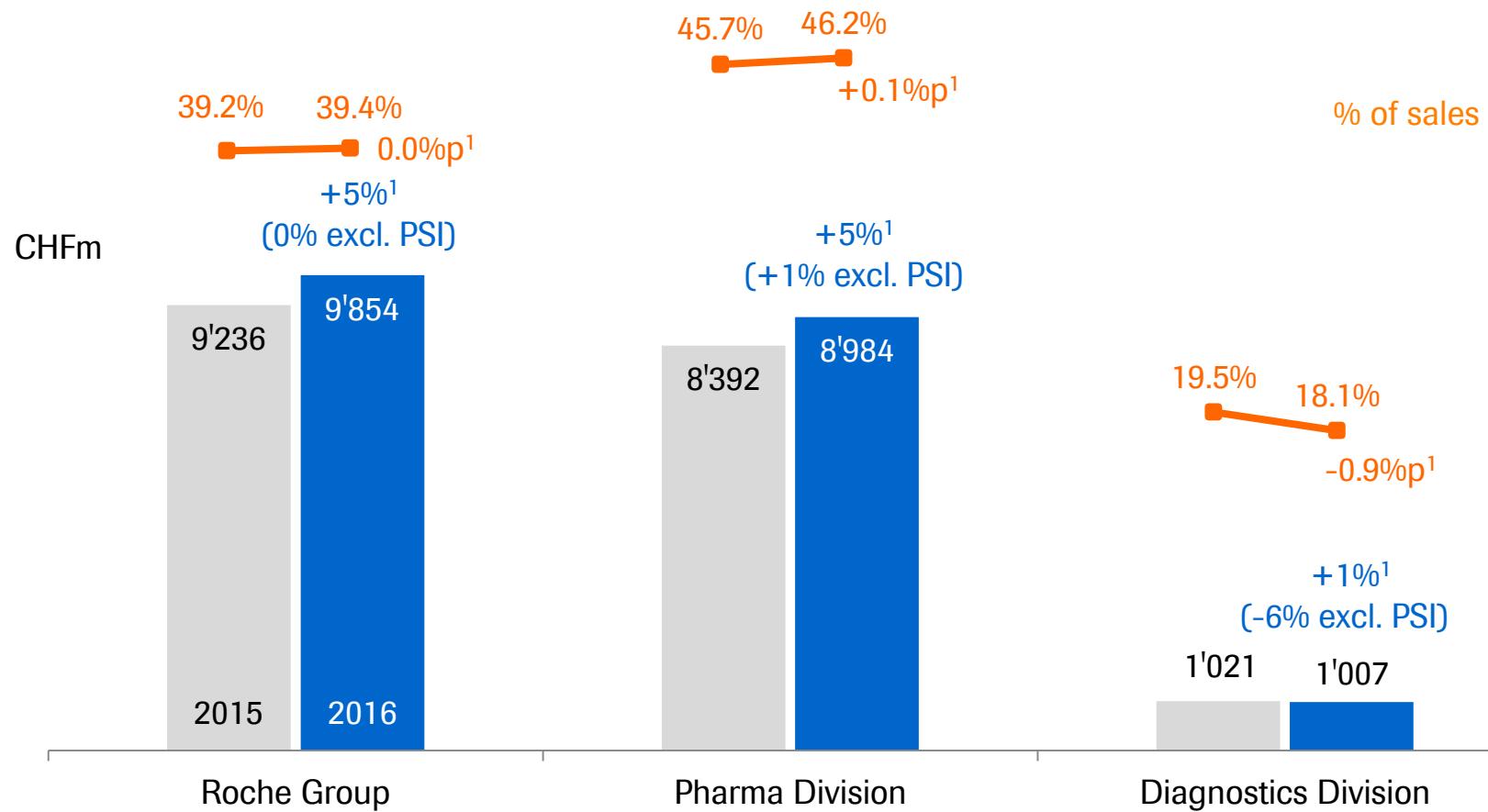


# HY 2016: Impact of past service income (PSI)

in CHFm	<b>Group</b>	<b>Pharma</b>	<b>Diagnostics</b>	<b>Corporate</b>
General & administration	426	310	77	39
<b>Operating profit</b>	<b>426</b>	<b>310</b>	<b>77</b>	<b>39</b>
<i>Margin impact</i>	+1.7%p	+1.6%p	+1.4%p	
<i>CER growth impact</i>	+4.6%p	+3.7%p	+7.5%p	
Deferred taxes	-85			
<b>Net income</b>	<b>341</b>			
<i>CER growth impact</i>	+5.4%p			
<b>Core EPS (CHF)</b>	<b>0.40</b>			
<i>CER growth impact</i>	+5.4%p			

# HY 2016: Strong core operating profit and margin

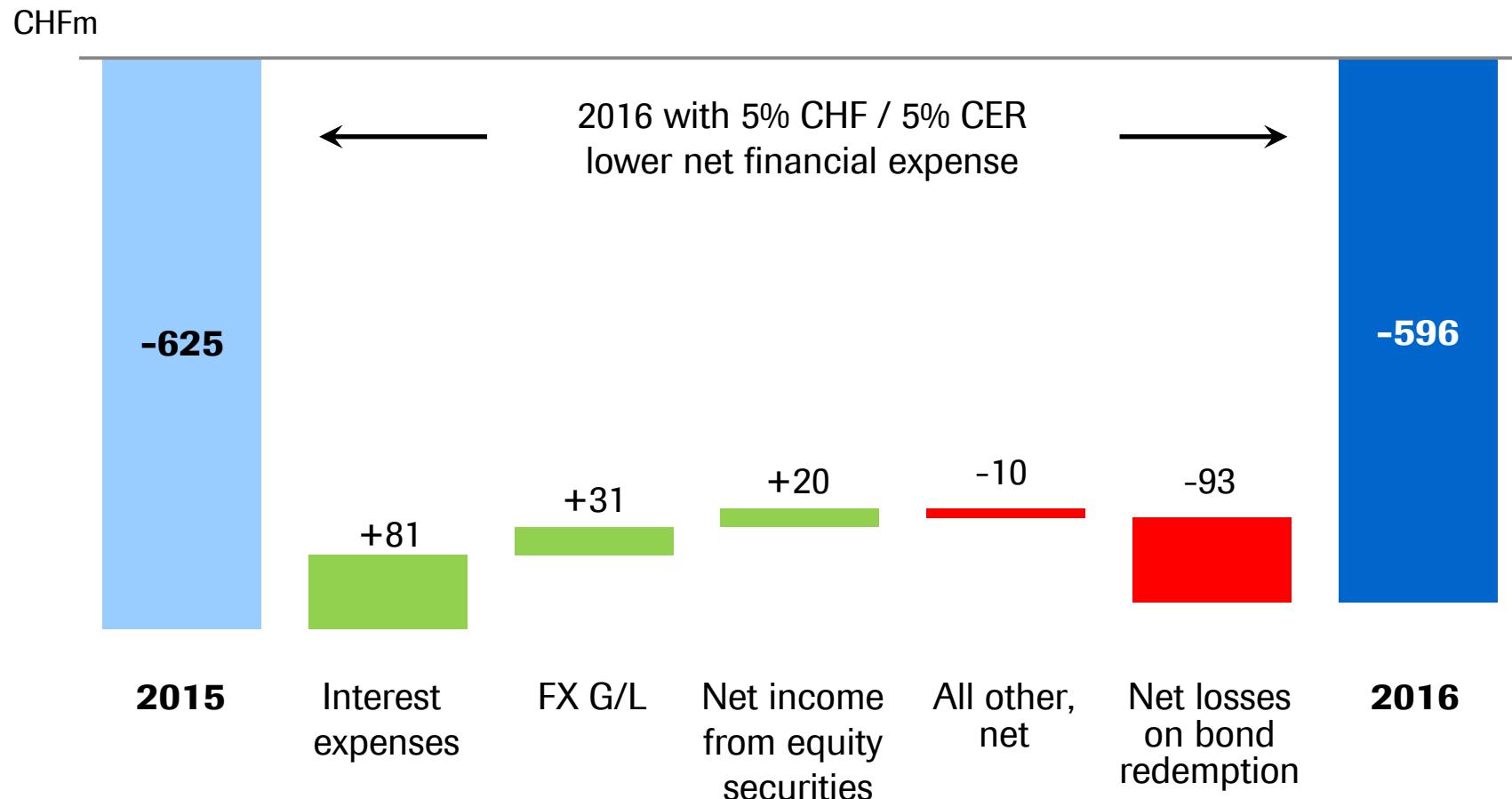
*Investments in development, pre-launch & launch activities*



<sup>1</sup> At CER=Constant Exchange Rates

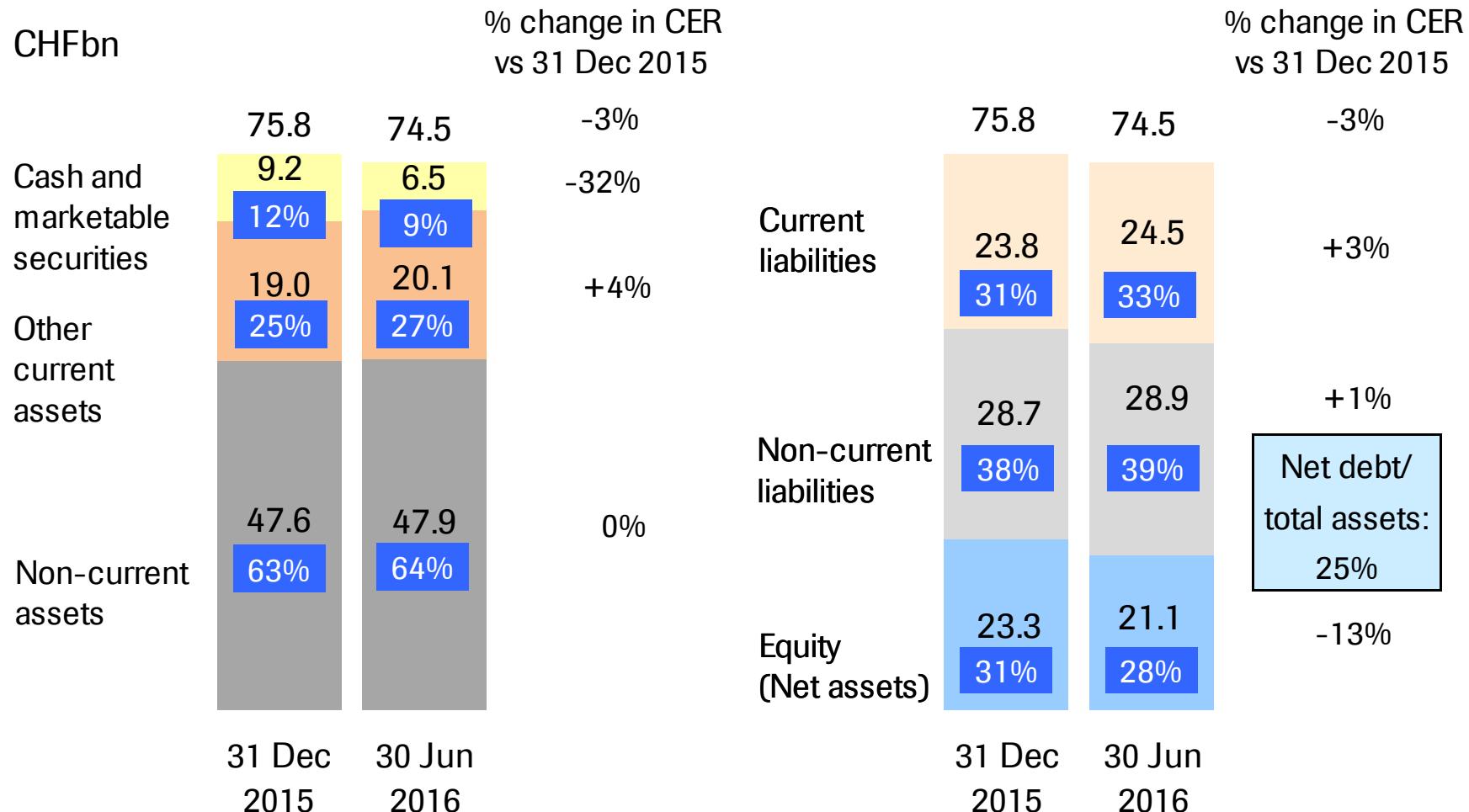
# HY 2016: Core net financial result

*Improvement driven by lower interest expenses*



# Balance sheet as at 30 June 2016

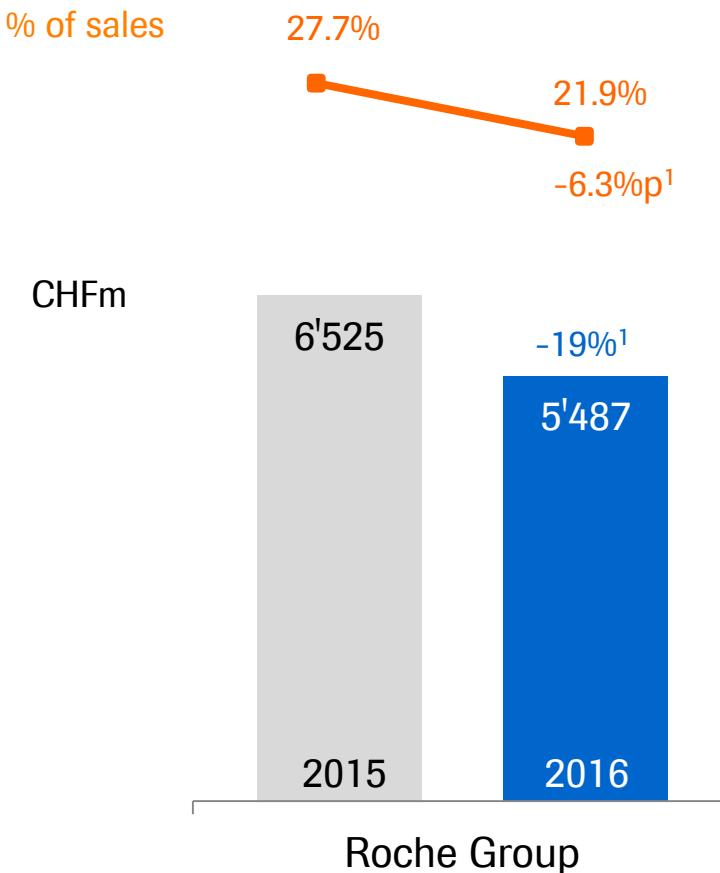
*Equity ratio and net debt to assets unchanged YoY*



CER=Constant Exchange Rates

# HY 2016: Operating free cash flow

## *Impacted by launches*



<sup>1</sup> At CER=Constant Exchange Rates

# Free cash flow: Reporting aligned to peers

*Dividend payments excluded from FCF*

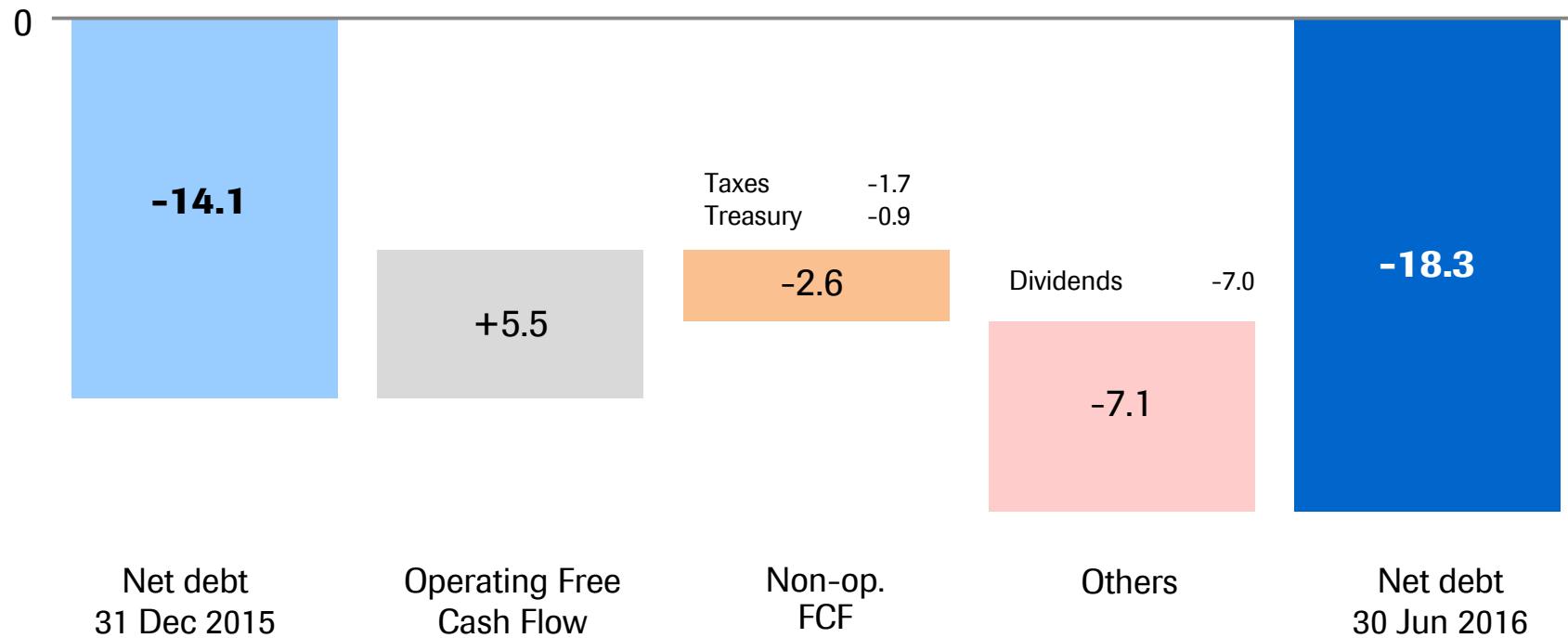
CHFm			Revised reporting	
	FY 2014	FY 2015	FY 2014	FY 2015
Operating free cash flow	15,778	14,872	15,778	14,872
Treasury activities	-756	-870	-756	-870
Taxes paid	-2,982	-3,696	-2,982	-3,696
Dividends paid	-6,718	-6,954	-	-
Free cash flow	5,322	3,352	12,040	10,306
Net debt at beginning of period	-6,708	-14,011	-6,708	-14,011
Free cash flow	5,322	3,352	12,040	10,306
Dividends paid	-	-	-6,718	-6,954
Other (mainly business combinations)	-12,625	-3,421	-12,625	-3,421
Change in net debt	-7,303	-69	-7,303	-69
Net debt at end of period	-14,011	-14,080	-14,011	-14,080

# HY 2016: Group net debt development

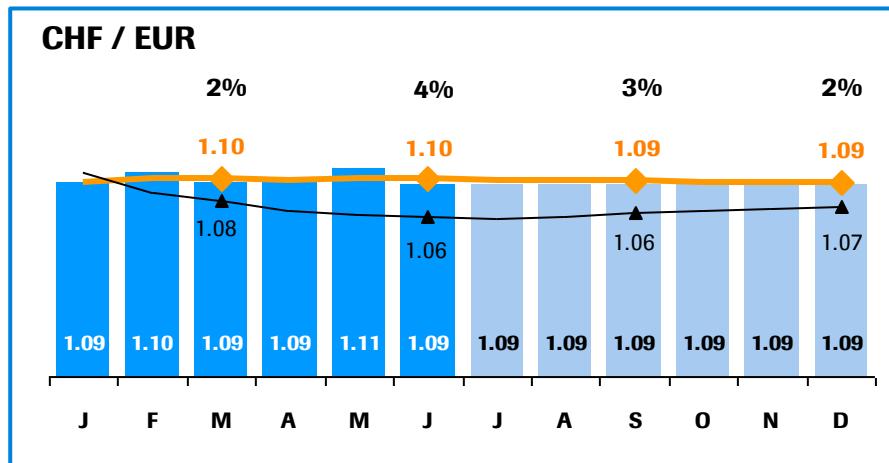
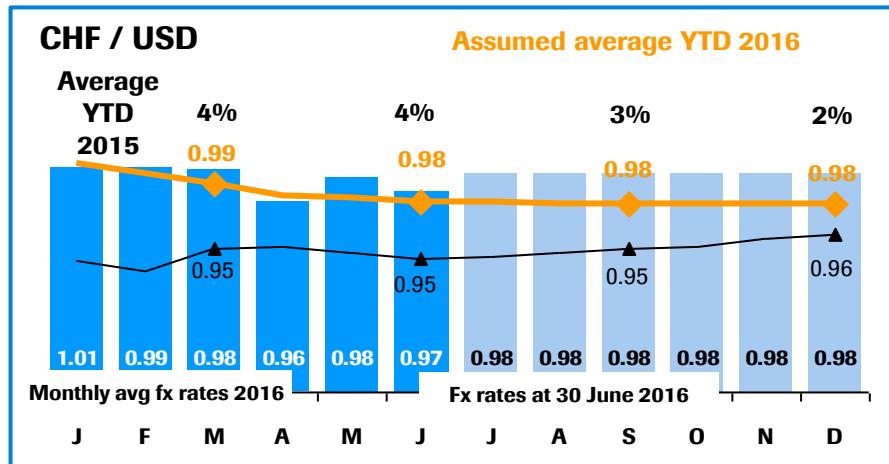
*Higher net debt due to dividend payment*

**CHFbn**

Free Cash Flow CHF 2.8bn  
vs. 4.0bn in HY 2015



# Positive currency impact on Swiss Franc results expected in 2016



Assuming the 30 June 2016 exchange rates remain stable until end of 2016, 2016 impact is expected to be (%p):

	Q1	HY	Sep YTD	FY
Sales	1	1	1	1
Core operating profit		2		1
Core EPS		2		2

# 2016 outlook

## Group sales growth<sup>1</sup>

Low to mid-single digit

## Core EPS growth<sup>1</sup>

Ahead of sales growth

## Dividend outlook

Further increase dividend in Swiss francs

<sup>1</sup> At Constant Exchange Rates (CER)

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## Pipeline summary

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**Marketed products additional indications**

**Global Development late-stage trials**

**pRED (Roche Pharma Research & Early Development)**

**gRED (Genentech Research & Early Development)**

**Roche Group HY 2016 results**

**Diagnostics**

**Foreign exchange rate information**



# Changes to the development pipeline

## HY 2016 update

New to Phase I	New to Phase II	New to Phase III	New to Registration
<p><b>4 NMEs transitioned from Ph0</b></p> <p><b>RG6000</b> – ALS</p> <p><b>RG6058</b> TIGIT+Tecentriq – solid tumors</p> <p><b>RG6100</b> Tau MAb – Alzheimer's disease</p> <p><b>RG7990</b> – asthma</p> <p><b>3 AIs</b></p> <p><b>RG7155</b> emactuzumab + CD40 iMAb – solid tumors</p> <p><b>RG7446</b> Tecentriq – NMIBC</p> <p><b>RG7446</b> Tecentriq + HMA – MDS</p>	<p><b>1 NME transitioned from Ph1</b></p> <p><b>RG7625</b> Cat S antag – autoimmune diseases</p> <p><b>1 AI reflected as NME following discontinuation of the lead indication</b></p> <p><b>RG3637</b> lebrikizumab in atopic dermatitis</p>	<p><b>5 AIs</b></p> <p><b>RG435</b> Avastin – mesothelioma</p> <p><b>RG7421</b> Cotellic + Tecentriq – CRC 3L</p> <p><b>RG7446</b> Tecentriq + chemo – cis-eligible mUC 1L</p> <p><b>RG7446</b> Tecentriq + chemo – extensive stage SCLC 1L</p> <p><b>RG7601</b> Venclexta + bortezomib – MM relapsed/refractory</p> <p><b>1 NME reflected as Roche global program following in-licensing from Chugai</b></p> <p><b>RG6168</b> IL-6R MAb – neuromyelitis optica</p>	<p><b>1 NME transitioned from Ph3</b></p> <p><b>RG1594</b> OCREVUS® – PPMS &amp; RMS</p> <p><b>1 AI transitioned from Ph3</b></p> <p><b>RG435</b> Avastin – rel. ovarian ca. Pt-sensitive</p>
Removed from Phase I	Removed from Phase II	Removed from Phase III	Removed from Registration
<p><b>1 NME</b></p> <p><b>RG6024</b> Flu B MAb – influenza B</p>		<p><b>3 AIs</b></p> <p><b>RG7159</b> Gazyva – DLBCL 1L</p> <p><b>RG1273</b> Perjeta + Herceptin – HER2+ mBC 2L</p> <p><b>RG3502</b> Kadcyla + Perjeta – HER2+ BC neoadj</p> <p><b>1 NME (new NME in Ph2 in atopic dermatitis)</b></p> <p><b>RG3637</b> lebrikizumab – severe asthma</p>	<p><b>2 AI following European approval</b></p> <p><b>RG435</b> Avastin + Tarceva – EGFR mut+ NSCLC</p> <p><b>RG7159</b> Gazyva – iNHL rituximab-ref</p>

# Roche Group development pipeline

## Phase I

(45 NMEs+23 AIs)

RG6016	LSD1 inh	AML
RG6047	SERD (2)	ER+(HER2-neg) mBC
RG6058	TIGIT+Tecentriq	solid tumors
RG6061	HIF1 alpha LNA	solid tumors
RG6078	IDO inh	solid tumors
RG6078	IDO inh+Tecentriq	solid tumors
RG6146	BET inh	oncology
RG7155	emactuzumab+Tecentriq	s. tumors
RG7155	emactuzumab + CD40 iMAb	s. tumors
RG7159	Gazyva multiple combos	heme indications
RG7304	Raf & MEK dual inh	solid tumors
RG7386	FAP-DR5 biMAb	solid tumors
RG7446	Tecentriq	solid tumors
RG7446	Tecentriq+Zelboraf+/-Cotellic	melanoma
RG7446	Tecentriq±Avastin±chemo	HCC-GC-PaC
RG7446	Tecentriq±Avastin±chemo	solid tumors
RG7446	Tecentriq+Cotellic	solid tumors
RG7446	Tecentriq +ipi/IFN	solid tumors
RG7446	Tecentriq+Tarceva/Alecensa	NSCLC
RG7446	Tecentriq+Gazyva	lymphoma
RG7446	Tecentriq±lenalidomide±daratumumab	MM
RG7446	Tecentriq+ K/HP	HER2+ BC
RG7446	Tecentriq	NMIBC
RG7446	Tecentriq+HMA	MDS
RG7461	FAP IL2v FP	solid tumors
RG7601	Venclexta	heme indications
RG7601	Venclexta +Gazyva	CLL
RG7601	Venclexta+Cotellic/idasanutlin	AML
RG7741	Chk1 inh	solid tum & lymphoma
RG7775	MDM2 (4) IV prodrug	AML
RG7802	CEACD3 TCB±Tecentriq	s. tumors
RG7813	*CEA IL2v FP+Tecentriq	s. tumors
RG7828	CD20/CD3 biMAb	heme tumors
RG7841	Ly6E ADC	solid tumors
RG7842	ERK inh + Cotellic	solid tumors
RG7876	CD40 iMAb+Tecentriq	solid tumors
RG7876	CD40 iMAb+vanucizumab	solid tumors
RG7882	ADC	ovarian ca
RG7888	OX40 MAb	solid tumors
RG7888	OX40 MAb + Tecentriq	solid tumors

RG7986	ADC	r/r NHL
RG3616	Erivedge+Esbriet	IPF
RG3616	Erivedge+ruxolitinib	myelofibrosis
RG6069	-	fibrosis
RG6125	Cadherin-11 MAb	RA
RG6149	ST2 MAb	asthma
RG7159	obinutuzumab	renal transplant
RG7845	BTK inh	autoimmune diseases
RG7880	IL-22Fc	inflammatory diseases
RG7990	-	asthma
RG6080	DBO β-lactamase inh	bact. infections
RG7834	-	HBV
RG7861	anti-S. aureus TAC	infect. diseases
RG7944	therapeutic vaccine	HBV
RG7992	FGFR1/KLB MAb	metabolic diseases
RG6000	-	ALS
RG6029	Nav1.7 inh (2)	pain
RG6100	Tau MAb	Alzheimer's disease
RG7203	PDE10A inh	schizophrenia
RG7800	SMN2 splicer	spinal muscular atrophy
RG7893	Nav1.7 inh	pain
RG7906	-	psychiatric disorders
RG7916	SMN2 splicer(2)	spinal muscular atrophy
RG7935	a-synuclein MAb	Parkinson's Disease
IONIS	ASO	Huntington's Disease
CHU	PTH1 recep. ago	hypoparathyroidism
CHU	-	hyperphosphatemia
RG4929	-	glaucoma

\* NN: cergutuzumab amunaleukin

atezolizumab is marketed under the brand name Tecentriq



New Molecular Entity (NME)  
Additional Indication (AI)  
  
Oncology  
Immunology  
Infectious Diseases  
CardioMetabolism  
Neuroscience  
Ophthalmology  
Other

RG3502	Kadcyla	HER2+ NSCLC
RG6046	SERD	ER+(HER2-neg) mBC
RG7221	vanucizumab	mCRC
RG7421	Cotellic+paclitaxel	TNBC
RG7440	ipatasertib	solid tumors
RG7596	polatuzumab vedotin	heme tumors
RG7601	Venclexta	DLBCL
RG7601	Venclexta + Rituxan	FL rel/ref
RG7604	taselisib	NSCLC sq 2L
RG7604	taselisib+letrozole	(HER2-) BC neoadj
RG7686	codirizumab	hepatocellular carcinoma
RG3637	lebrikizumab +/- Esbriet	IPF
RG3637	lebrikizumab	atopic dermatitis
RG3637	lebrikizumab	COPD
RG7159	obinutuzumab	lupus nephritis
RG7625	Cat-S antag	autoimmune diseases
CHU	nemolizumab (IL-31R)	atopic dermatitis
CHU	nemolizumab (IL-31R)	pruritus dialysis pts
PRO	VAP-1 inh	inflammatory disease
RG6152	CAP endonuclease inh	influenza
RG7227	danoprevir	HCV
RG7745	Flu A MAb	influenza A
RG7795	TLR7 agonist	HBV
CHU	URAT1 inh	gout
RG1662	basmisanil	Down's syndrome
RG6083	olesoxime	spinal muscular atrophy
RG7314	V1 receptor antag	autism
RG3645	ranibizumab PDS	wAMD
RG7716	VEGF-ANG2 biMAb	wAMD

## Phase II

(18NMEs+11 AIs)



# Roche Group development pipeline

## Phase III (8 NMEs + 29 AIs)

RG435 <sup>1</sup>	Avastin	glioblastoma 1L
RG435	Avastin	mesothelioma
RG1273	Perjeta+Herceptin	HER2+ BC adj
RG1273	Perjeta+Herceptin	HER2+gastric ca 1L
RG3502	Kadcyla	HER2+ BC adj
RG3502	Kadcyla + Perjeta	HER2+ BC adj
RG6013	emicizumab	hemophilia A
RG7159	Gazyva	follicular lymphoma 1L
RG7204	Zelboraf	melanoma adj
RG7421	Cotellic + Tecentriq	CRC 3L
RG7446	Tecentriq+chemo	NSCLC non-sq. 1L
RG7446	Tecentriq+chemo+Avastin	NSCLC non-sq. 1L
RG7446	Tecentriq+chemo+temozolamide	NSCLC non-sq. 1L
RG7446	Tecentriq+chemo	NSCLC sq. 1L
RG7446	Tecentriq Dx+	NSCLC sq. & non sq. 1L
RG7446	Tecentriq	NSCLC adj
RG7446	Tecentriq+abraxane	TNBC
RG7446	Tecentriq+Avastin	RCC
RG7446	Tecentriq	muscle inv. bladder ca adj
RG7446	*Tecentriq+chemo	cis-ineligible mUC
RG7446	Tecentriq+chemo	extens. stage SCLC 1L
RG7601	Venclexta+Rituxan	CLL rel/refract
RG7601	Venclexta+Gazyva	CLL 1L
RG7601	Venclexta+bortezomib	MM rel/refract
RG7604	taselisib+fulvestrant	PIK3CAmut ER+(HER2-)mBC
RG7388	idasanutlin	AML
RG7853	Alecensa	ALK+ NSCLC 1L

\* Expect FPI Q3.2016

RG105	MabThera	pemphigus vulgaris
RG1569	Actemra	giant cell arteritis
RG1569	Actemra	systemic sclerosis
RG7413	etrolizumab	ulcerative colitis
RG7413	etrolizumab	Crohn's disease
CHU	Actemra	large-vessel vasculitis
RG1450	gantenerumab	Alzheimer's
RG6168	IL-6R MAb	neuromyelitis optica
RG7412	crenezumab	Alzheimer's
RG7417	lampalizumab	geographic atrophy

## Registration (3 NMEs + 3 AIs)

RG105 <sup>2</sup>	MabThera SC	CLL
RG435 <sup>3</sup>	Avastin	rel. ovarian ca. Pt-sensitive
RG7446 <sup>4</sup>	Tecentriq	mUC 2L
RG7446 <sup>5</sup>	Tecentriq	NSCLC 2L+
RG7853 <sup>6</sup>	Alecensa	ALK+ NSCLC 2L
RG1594	OCREVUS®	PPMS & RMS

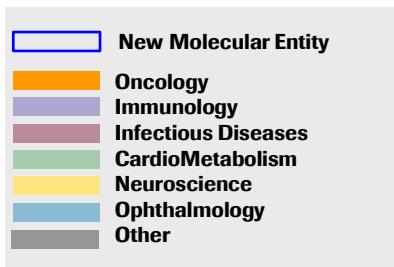
atezolizumab is marketed under the brand name Tecentriq

- 1 US only
- 2 Approved in EU – Filing US pending
- 3 EU chemo backbone extension filing pending
- 4 Phase 3 ongoing – Approved in the US
- 5 Phase 3 ongoing
- 6 Approved in the US and Japan

	<b>New Molecular Entity (NME)</b>
	<b>Additional Indication (AI)</b>
	<b>Oncology</b>
	<b>Immunology</b>
	<b>Infectious Diseases</b>
	<b>CardioMetabolism</b>
	<b>Neuroscience</b>
	<b>Ophthalmology</b>
	<b>Other</b>
<b>RG-No</b>	<b>Roche/Genentech managed</b>
<b>CHU</b>	<b>Chugai managed</b>
<b>IONIS</b>	<b>IONIS managed</b>
<b>PRO</b>	<b>Proximagen managed</b>
<b>RG105</b>	<b>MabThera is branded as Rituxan in US and Japan</b>
<b>RG1569</b>	<b>Actemra is branded as RoActemra in EU</b>
<b>RG7159</b>	<b>Gazyva is branded as Gazyvaro in EU</b>

# NME submissions and their additional indications

## *Projects currently in phase 2 and 3*



OCREVUS® (RG1594) PPMS & RMS ✓	emicizumab (RG6013) hemophilia A	VEGF/ANG2 biMAb (RG7716) wAMD	TLR7 ago (RG7795) HBV
*Tecentriq (RG7446) mUC 2L ✓	Taselisib +fulvestrant (RG7604) PIK3CA mut ER+ (HER2 neg) ER+ mBC	idasanutlin (RG7388) AML	danoprevir (RG7227) HCV
		taselisib (RG7604)+letrozole ER+(HER2-neg) BC neoadj	Flu A MAb (RG7745) influenza
		taselisib (RG7604) NSCLC sq 2L	CAP endonuclease inh (RG6152) influenza
		SERD (RG6046) ER+(HER2-neg) mBC	crenezumab (RG7412) Alzheimer's
		ipatasertib (RG7440) solid tumors	V1 receptor antag (RG7314) autism
		IL-6R MAb (RG6168) neuromyelitis optica	olesoxime (RG6083) SMA
	Iampalizumab (RG7417) geographic atrophy	vanucizumab (RG7221) colorectal cancer	etrolizumab (RG7413) Crohn's disease
		polatuzumab vedotin (RG7596) heme tumors	etrolizumab (RG7413) ulcerative colitis
		codrituzumab (RG7686) hepatocellular carcinoma	lebrikizumab (RG3637) COPD
		gantenerumab (RG1450) Alzheimer's	lebrikizumab (RG3637) atopic dermatitis
			lebrikizumab+-Esbriet (RG3637) IPF

2016

2017

2018

2019 and beyond

Unless stated otherwise, submissions are planned to occur in US and EU

✓ indicates a submission which has occurred with regulatory action pending ; \*approved in US

Status as of July 21, 2016

# Submissions of additional indications for existing products



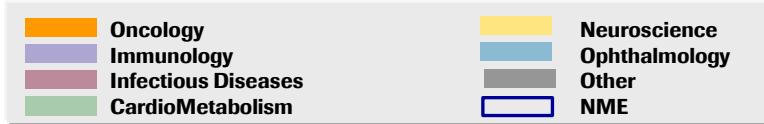
*Projects currently in phase 2 and 3*

		MabThera pemphigus vulgaris		
		Actemra systemic sclerosis	obinutuzumab lupus nephritis	Venclexta+bortezomib MM rel/ref
		Tecentriq NSCLC sq & non-sq 1L (Dx+)	ranibizumab PDS wAMD	Cotellic+Tecentriq CRC 3L
	Venclexta+Rituxan CLL rel/refractory	Tecentriq+chemo extens. stage SCLC 1L	Venclexta+Rituxan FL rel/ref	Cotellic+paclitaxel TNBC
Actemra giant cell arteritis	Avastin (US) GBM	Tecentriq+chemo+ Avastin NSCLC non-sq 1L	Venclexta+Gazyva CLL 1L	Tecentriq+chemo +pemetrexed NSCLC non-sq 1L
Tecentriq NSCLC 2L+ ✓	Avastin mesothelioma	Tecentriq+chemo NSCLC sq 1L	Venclexta DLBCL	Tecentriq+chemo cis-ineligible mUC 1L
*Avastin rel. ovarian ca. Pt-sens. ✓	Alecensa 1L Alk+ NSCLC	Tecentriq+chemo NSCLC non-sq 1L	Kadcyla HER2-pos. NSCLC	Tecentriq NSCLC adj
Gazyva follicular lymphoma 1L	Zelboraf melanoma adj.	Tecentriq+Avastin RCC	Kadcyla+Perjeta HER2-pos. BC adj.	
Perjeta + Herceptin HER2-pos. BC adj.	Perjeta+Herceptin HER2-pos. gastric cancer 1L	Tecentriq+abraxane TNBC	Kadcyla HER2-pos. BC adj.	Tecentriq MIBC adj
<b>2016</b> <b>2017</b> <b>2018</b> <b>2019 and beyond</b>				

✓ indicates submission to health authorities has occurred

\* Approved in EU

Unless stated otherwise, submissions are planned to occur in US and EU.  
Status as of July 21, 2016



# Major granted and pending approvals 2016

**US**

## Approved

Venclexta 17pdel  
CLL rel/ref  
April 2016

Tecentriq  
mUC 2L  
May 2016

Gazyva  
iNHL rituximab-ref.  
February 2016

## Pending Approval

Avastin  
rel. ovarian ca. Pt-sens.  
Filed June 2016

Tecentriq  
NSCLC 2L+  
Filed February 2016

OCREVUS®  
PPMS & RMS  
Filed April 2016

**EU**

MabThera SC  
CLL  
May 2016

Avastin + Tarceva  
EGFR mut+ NSCLC  
June 2016

Gazyva  
iNHL rituximab-ref.  
June 2016

Alecensa  
ALK+ NSCLC 2L  
Filed September 2015

Tecentriq  
mUC 2L  
Filed April 2016

OCREVUS®  
PPMS & RMS  
Filed April 2016

**Japan-Chugai**

Bonviva  
osteoporosis (oral)  
January 2016

Avastin  
cervical cancer  
May 2016

Oncology	Neuroscience
Immunology	Ophthalmology
Infectious Diseases	Other
CardioMetabolism	NME

# Roche Group Development pipeline

## Combinations

### Phase I

(5 NMEs + 19 AIs)

RG6058	TIGIT+Tecentriq	solid tumors
RG6078	IDO inh + Tecentriq	solid tumors
RG7155	emactuzumab+Tecentriq	s. tumors
RG7155	emactuzumab + CD40 iMAb	s. tumors
RG7159	Gazyva multiple combos	heme indications
RG7446	Tecentriq+Zelboraf+/-Cotellic	melanoma
RG7446	Tecentriq+Avastin+chemo	HCC-GC-PaC
RG7446	Tecentriq±Avastin±chemo	solid tumors
RG7446	Tecentriq+Cotellic	solid tumors
RG7446	Tecentriq +ipi/IFN	solid tumors
RG7446	Tecentriq+Tarceva/ Alecensa	NSCLC
RG7446	Tecentriq+Gazyva	lymphoma
RG7446	Tecentriq±lenalidom.±daratumumab	MM
RG7446	Tecentriq + K/HP	HER2+BC
RG7446	Tecentriq+HMA	MDS
RG7601	Venclexta+Gazyva	CLL
RG7601	Venclexta+Cotellic/idasanutlin	AML
RG7802	CEA CD3 TCB+Tecentriq	s. tumors
RG7813	*CEA IL2v FP+Tecentriq	s. tumors
RG7876	CD40 MAb+Tecentriq	s. tumors
RG7876	CD40 iMAb+vanucizumab	solid tumors
RG7888	OX40 MAb +Tecentriq	s. tumors
RG3616	Eridge+Esbriet	IPF
RG3616	Eridge+ruxolitinib	myelofibrosis

### Phase II

(4 AIs)

RG7421	Cotellic+paclitaxel	TNBC
RG7601	Venclexta+Rituxan	FL rel/ref
RG7604	taselisib+letrozole	(HER2-)BC neoadj
RG3637	lebrikizumab +/- Esbriet	IPF

### Phase III

(15 AIs+1 NME)

RG1273	Perjeta+Herceptin	H ER2+ BC adj
RG1273	Perjeta+Herceptin	HER2+gastric ca 1L
RG3502	Kadcyla + Perjeta	HER2+ BC adj
RG7421	Cotellic + Tecentriq	CRC 3L
RG7446	Tecentriq+chemo	SCLC non-sq. 1L
RG7446	Tecentriq+chemo+Avastin	NSCLC non-sq. 1L
RG7446	Tecentriq+chemo+pemetrexed	NSCLC non-sq. 1L
RG7446	Tecentriq+chemo	NSCLC sq. 1L
RG7446	Tecentriq+abraxane	TNBC
RG7446	Tecentriq+Avastin	RCC
RG7446	Tecentriq+chemo cis-ineligible	mUC 1L
RG7446	Tecentriq+chemo extens. stage	SCLC 1L
RG7601	Venclexta+Rituxan	CLL rel/ref
RG7601	Venclexta +Gazyva	CLL 1L
RG7601	Venclexta+bortezomib	MM rel/refract
RG7604	taselisib+fulvestrant	PIK3CA mut ER+(HER2-neg)mBC

New Molecular Entity (NME)  
Additional Indication (AI)

Oncology  
Immunology

RG-No Roche Genentech managed

\*INN: cergutuzumab amunaleukin

atezolizumab is marketed under the brand name Tecentriq

# Cancer immunotherapy pipeline overview

Phase I (9 NMEs + 25 AIs)			Phase II (2 AIs)			Registration (1 NME + 1 AI)		
RG6058	TIGIT+Tecentriq	solid tumors	IMDZ	Tecentriq+NY-ESO-1	soft tissue sarcoma	RG7446 <sup>2</sup>	Tecentriq	mUC 2L
RG6078	IDO inh	solid tumors	SNDX	Tecentriq(atezo)+entinostat	TNBC	RG7446 <sup>3</sup>	Tecentriq	NSCLC 2L+
RG6078	IDO inh+Tecentriq	solid tumors						
RG7155	emactuzumab+Tecentriq	solid tumors						
RG7155	emactuzumab + CD40 iMAb	s. tumors						
RG7446	Tecentriq	solid tumors						
RG7446	Tecentriq+Zelboraf+/-Cotellic	melanoma						
RG7446	Tecentriq±Avastin±chemo	HCC-GC-PaC						
RG7446	Tecentriq±Avastin±chemo	solid tumors						
RG7446	Tecentriq+ Cotellic	solid tumors						
RG7446	Tecentriq + ipi/IFN	solid tumors						
RG7446	Tecentriq+Tarceva/Alecensa	NSCLC						
RG7446	Tecentriq+Gazyva	lymphoma						
RG7446	Tecentriq±lenalidom.±daratumumab	MM						
RG7446	Tecentriq+ K/HP	HER2+ BC						
RG7446	Tecentriq	NMIBC						
RG7446	Tecentriq+HMA	MDS						
RG7461	FAP IL2v FP	solid tumors						
RG7802	CEA CD3 TCB+Tecentriq	s. tumors						
RG7813	CEA IL2v FP+Tecentriq	s. tumors						
RG7828	CD20/CD3 biMAb	heme tumors						
RG7876	CD40 iMAb+Tecentriq	s. tumors						
RG7876	CD40 iMAb+vanucizumab	solid tumors						
RG7888	OX40 MAb	solid tumors						
RG7888	OX40 MAb+Tecentriq	s. tumors						
*INCY	Tecentriq(atezo)+IDO inh	solid tumors						
*CLDX	Tecentriq(atezo)+varililumab	s. tumors						
*CRVS	Tecentriq (atezo)+CPI-444	s. tumors						
*KITE	Tecentriq (atezo)+KTE-019	r/r DLBCL						
*AMGN	Tecentriq+talimogene laherp TNBC, CRC							
*JNJ	Tecentriq ±daratum.±lenalido.	s. tumors						
*CLVS	Tecentriq(atezo)+rucaparib	ovarian ca						
Epizyme	Tecentriq+tazemetostat	r/r DLBCL						
Astex	Tecentriq+guadecitabine	AML						

## Phase III (12 AIs)

RG7421	Cotellic + Tecentriq	CRC 3L
RG7446	Tecentriq+chemo	NSCLC non-sq 1L
RG7446	Tecentriq+chemo+Avastin	NSCLC non-sq 1L
RG7446	Tecentriq+chemo+pemetrexed	NSCLC non-sq 1L
RG7446	Tecentriq+chemo	NSCLC sq 1L
RG7446	Tecentriq Dx+	SCLC sq & non sq 1L
RG7446	Tecentriq	NSCLC adj
RG7446	Tecentriq+abraxane	TNBC
RG7446	Tecentriq+Avastin	RCC
RG7446	Tecentriq	muscle inv. bladder ca adj
RG7446	Tecentriq+chemo cis-ineligible	mUC 1L
RG7446	Tecentriq+chemo extens. stage	SCLC 1L

New Molecular Entity (NME)  
Additional Indication (AI)

Oncology

RG-No Roche Genentech managed

atezolizumab is marketed under the brand name Tecentriq

\*external collaborations: INCY- Incyte INCB024360, CLDX - Celldex CD27 MAb; CLVS – Clovis PARPi, CRVS – Corvus CPI-444, KITE – Kite KTE-C19, AMGN – Amgen oncolytic virus, JNJ – Janssen CD38 MAb., IMDZ – Immune Design CMB305, SNDX – Syndax HDACi



*Doing now what patients need next*