Turning innovation into patients benefit

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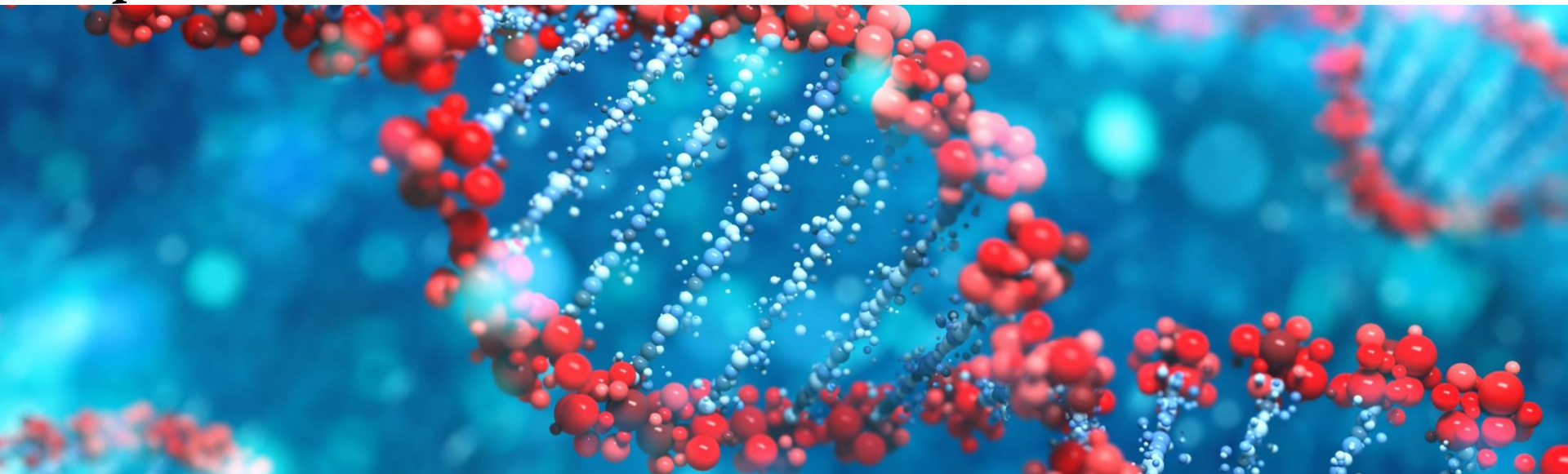
UBS Best of Switzerland Conference 2016
September, 2016



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2 legislative and regulatory developments and economic conditions;
3 delay or inability in obtaining regulatory approvals or bringing products to market;
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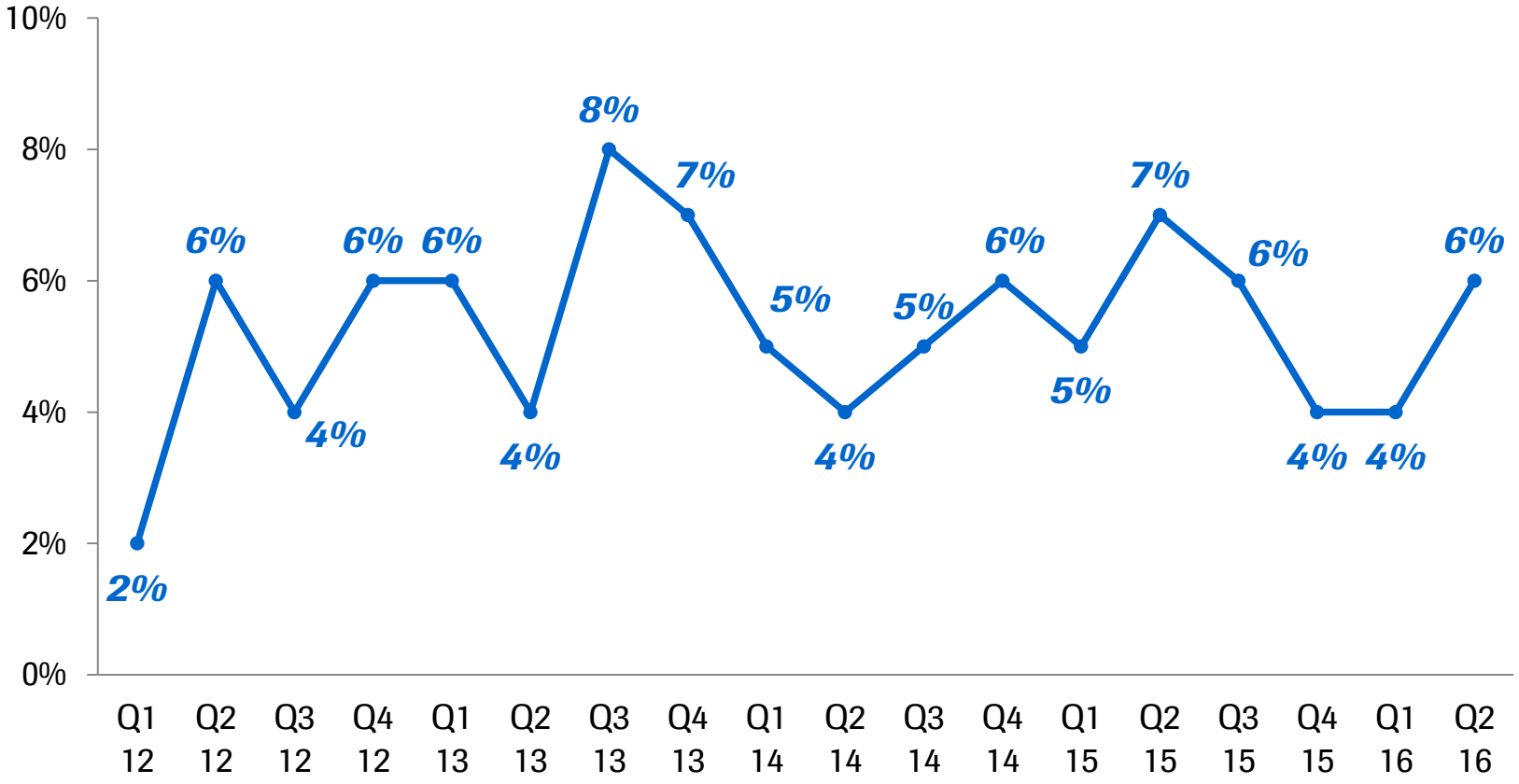
Performance update

Innovation and differentiation

Improving the standard of care

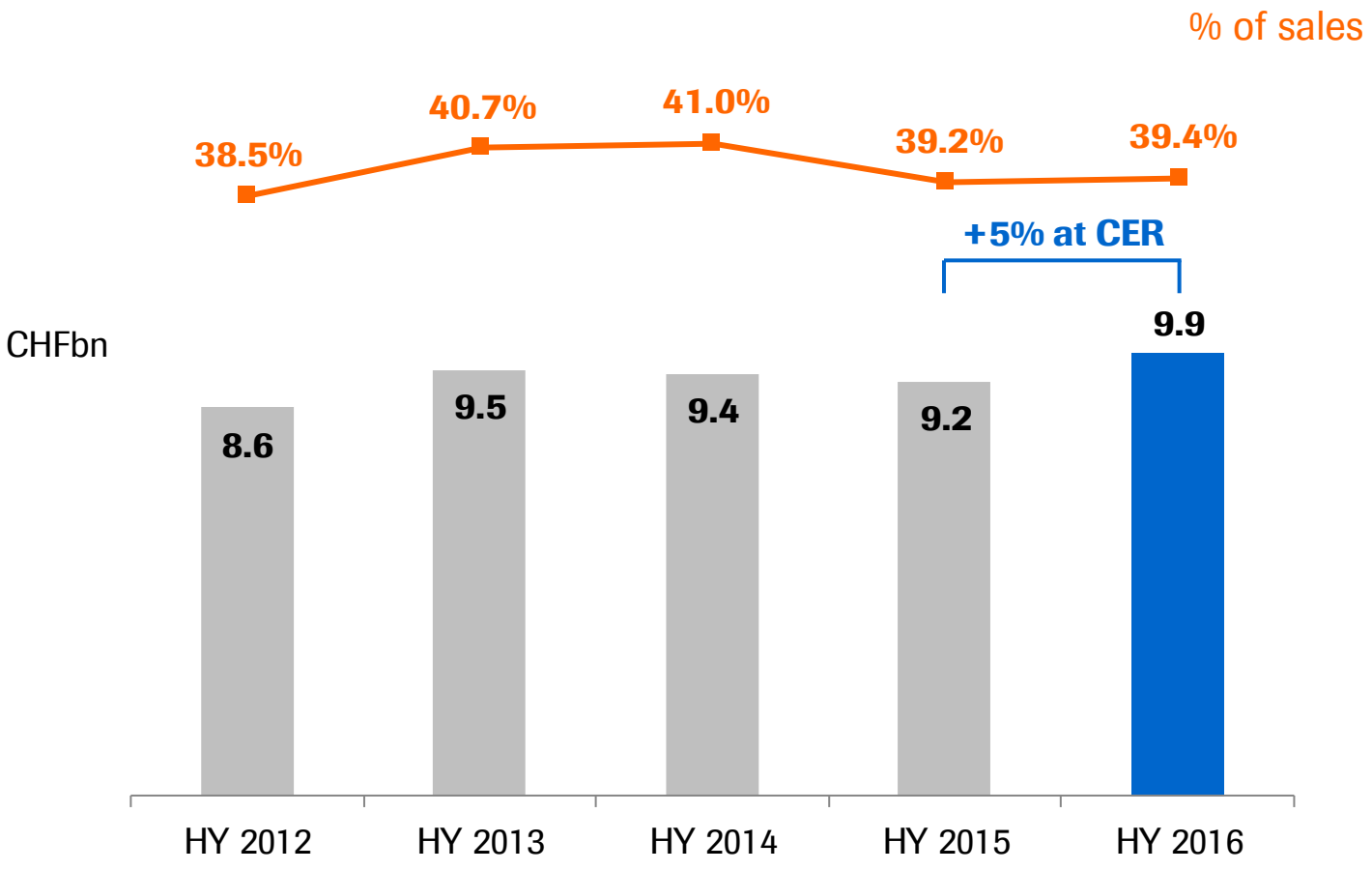
Outlook

Q2 2016: Sales growth for fifth consecutive year



All growth rates at Constant Exchange Rates (CER)

HY 2016: Strong core operating profit & margin

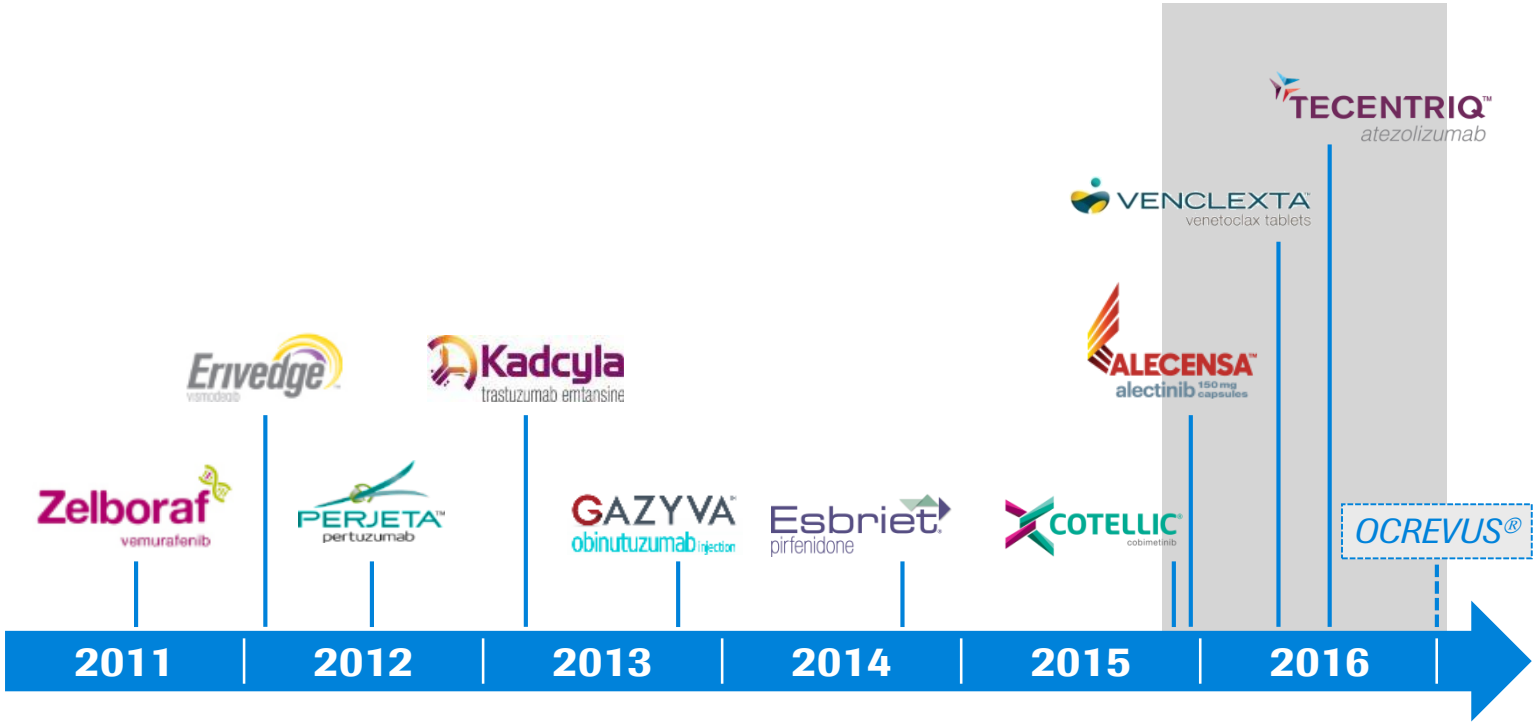


CER=Constant Exchange Rates

Continued leadership in innovation

Launches at historical high

5 NME launches in a year



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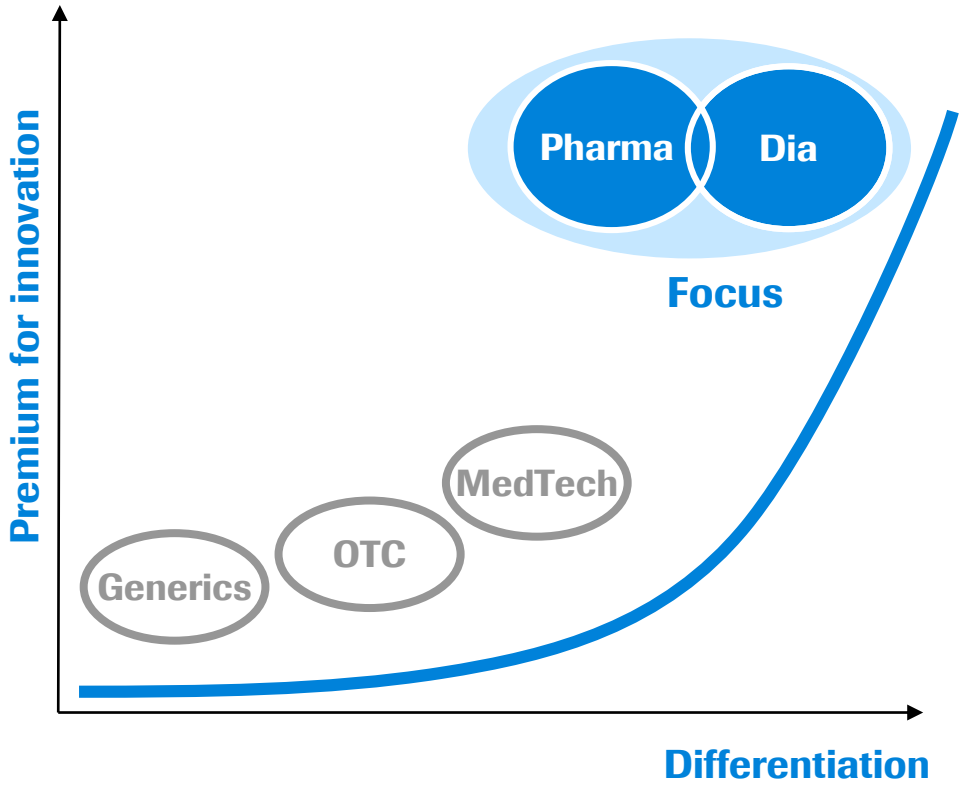
Roche strategy: Focused on medically differentiated therapies

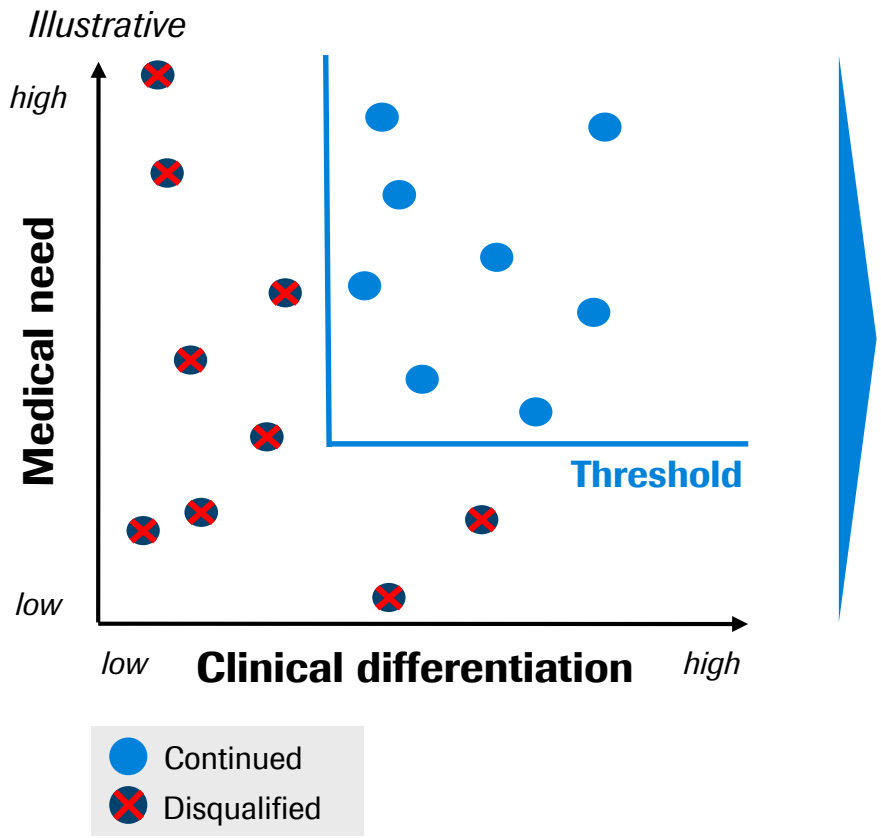


Regulators:
Optimised benefit / risk ratio

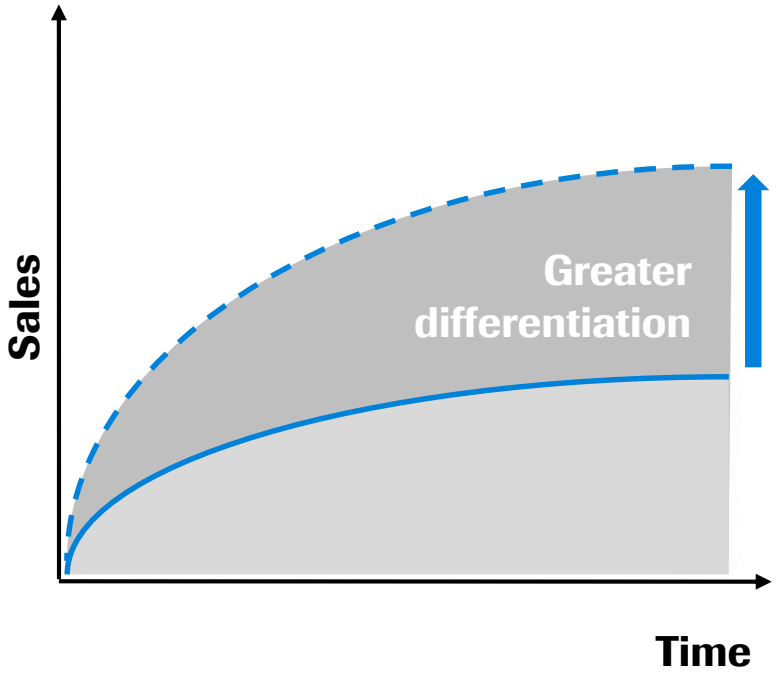
Payors:
Optimised benefit / cost ratio

Approach towards innovation
Prioritizing rigorously

We select at late stage entry



…to increase sales potential

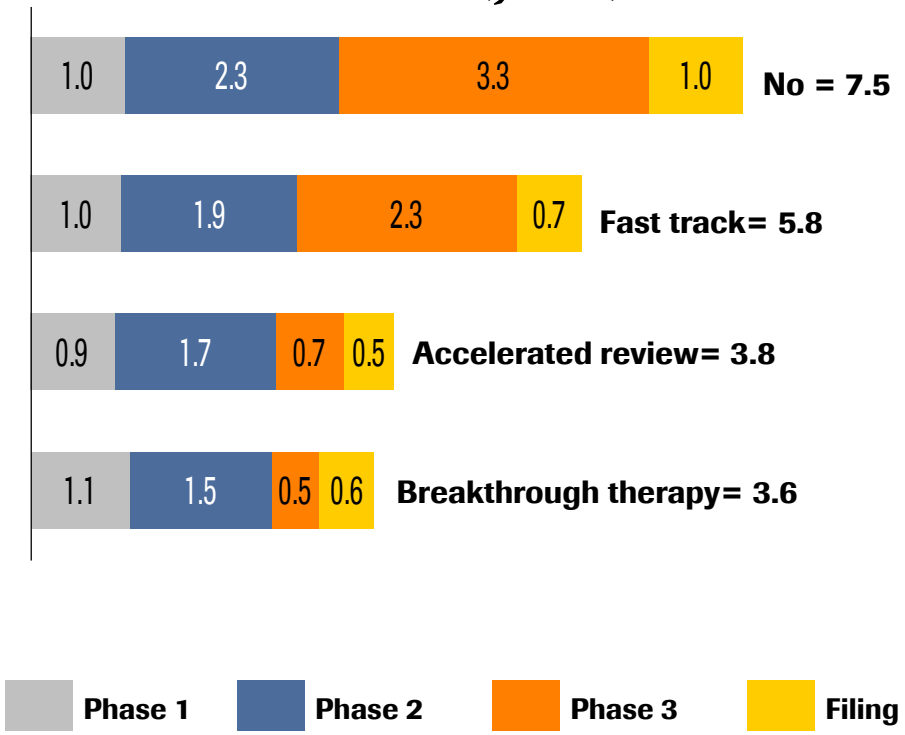


Breakthrough designation impacting cycle times

12 *Breakthrough Therapy Designations*

Rank	Company	#
1	**Roche**	**12**
2	Novartis	10
3	BMS	9
4	Merck	6
5	Pfizer	6
6	Abbvie	6

Phase duration (years)



Source: http://www.focr.org/breakthrough-therapies as at July 2016; PPMS=Primary Progressive Multiple Sclerosis; CLL=Chronic Lymphocytic Leukemia; NSCLC=Non-Small Cell Lung Cancer; IPF=Idiopathic Pulmonary Fibrosis

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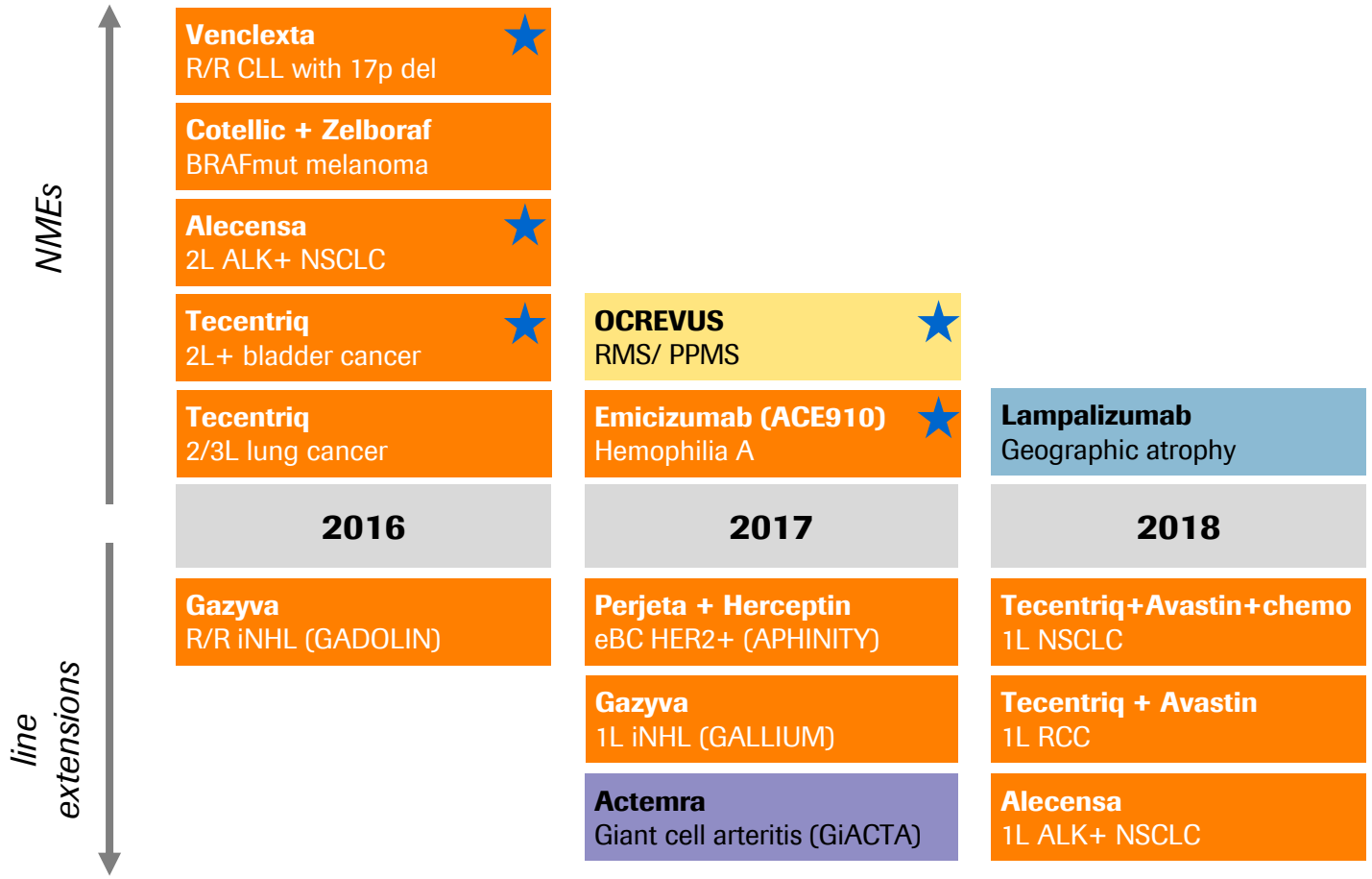
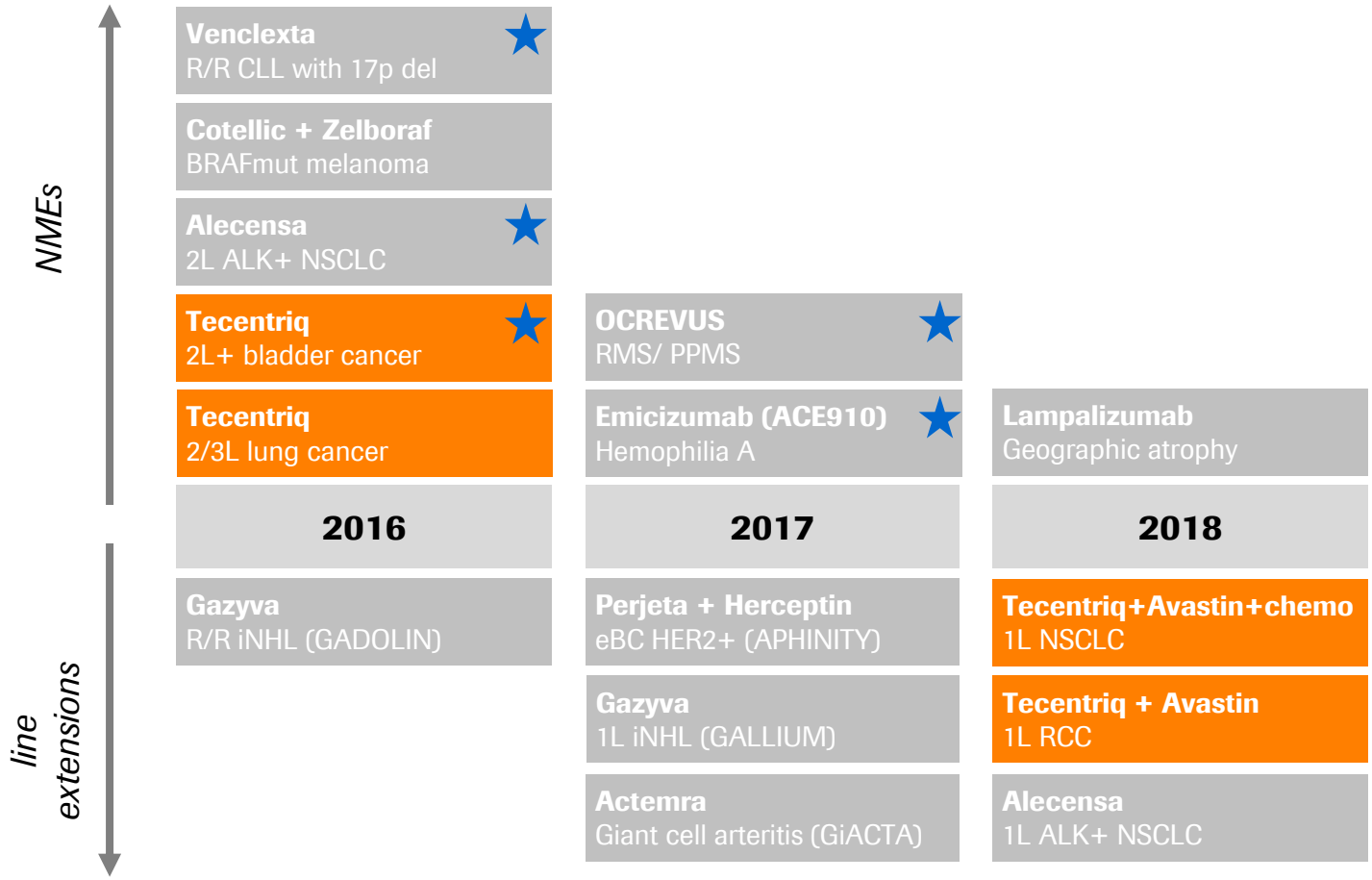
2016 onwards: Significant launch activities



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

2016 onwards: Significant launch activities

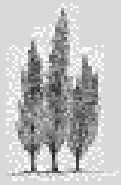


Outcome studies are event-driven: timelines may change. Standard approval timelines of 1 year assumed.

Tecentriq clinical program in 2/3L NSCLC

Breakthrough designation in PD-L1+ patients

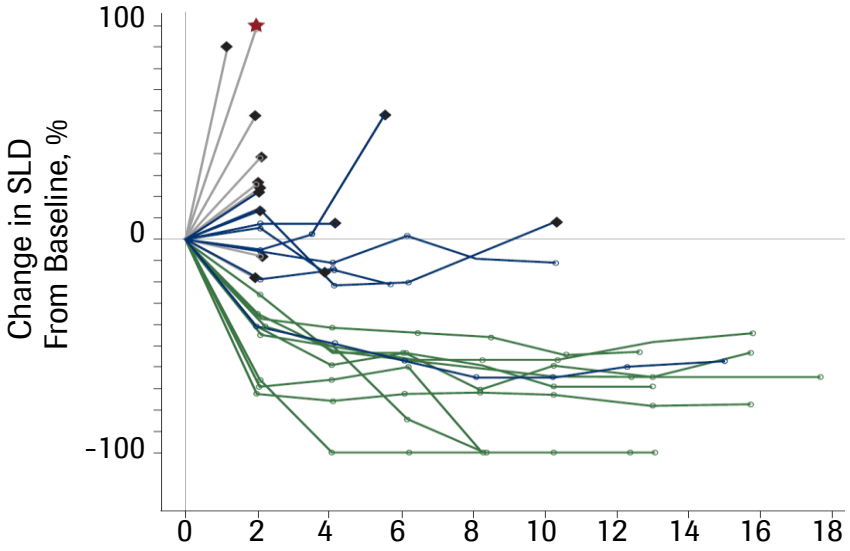
FDA BTD

				Primary end-point:
FIR 	**Phase II**	**PD-L1-selected** mNSCLC *n=138*	Tecentriq 1200 mg IV Q3 weeks	**Response Rates** ✓
POPLAR 	**Phase II**	**All comers** 2/3L mNSCLC *n=287* PD-L1 stratified	Tecentriq 1200 mg IV Q3 weeks Docetaxel 75 mg/m2 IV Q3 weeks	**Overall Survival** ✓
BIRCH 	**Phase II**	**PD-L1-selected** mNSCLC *n=667*	Tecentriq 1200 mg IV Q3 weeks	**Response Rates** ✓
OAK 	**Phase III**	**All comers** 2/3L mNSCLC *n=1100* PD-L1 stratified	Tecentriq 1200 mg IV Q3 weeks Docetaxel 75 mg/m2 IV Q3 weeks	**Overall Survival** ✓

Note: Atezolizumab (Anti-PD-L1) is listed as MPDL3280A in clinicaltrials.gov
mNSCLC = metastatic Non Small-Cell Lung Cancer

Significant variability in treatment response to cancer immunotherapy

Ph1 Tecentriq monotherapy UBC: IC2/3



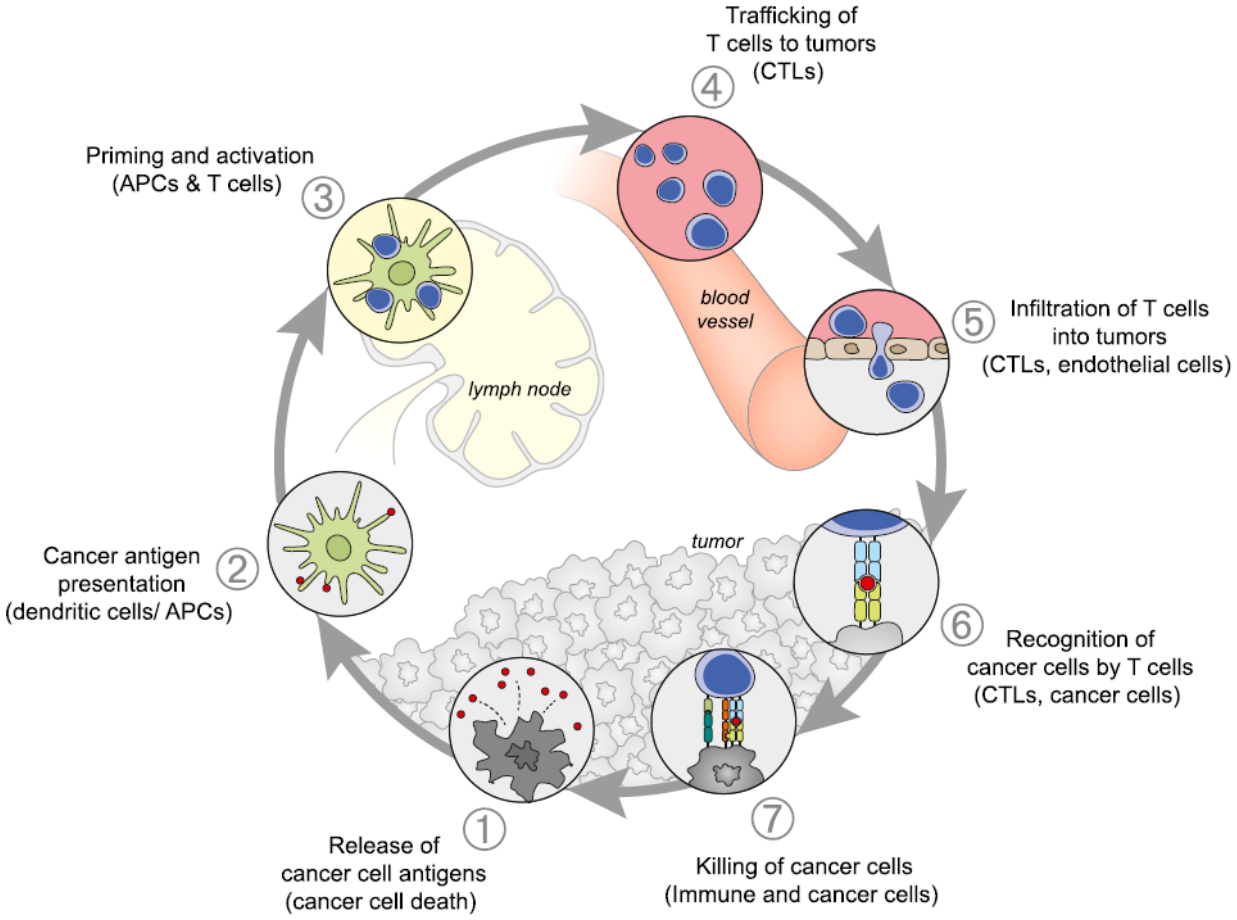
PROGRESSIVE DISEASE (PD)

STABLE DISEASE (SD)

DURABLE RESPONSES (PR/CR)

UBC=urinary bladder cancer ; PR=partial responses; CR=complete responses

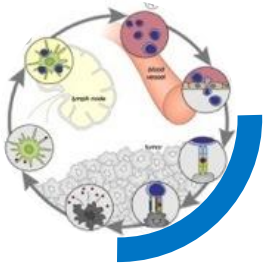
The 7 steps of the cancer immunity cycle guide our prioritization framework for development



Chen and Mellman. Immunity 2013

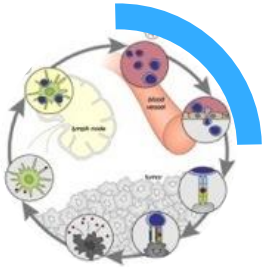
Different tumours show different immune phenotypes and will need different solutions

Inflamed			Immune Excluded		Immune Desert	
Melanoma	Lung	Bladder	TNBC	Colorectal	Gastric	Ovarian



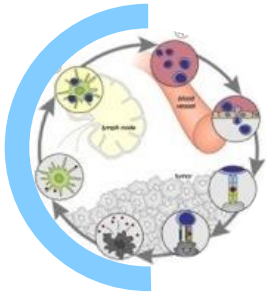
CD8+ T cells infiltrated, but non-functional

Accelerate or remove brakes on T-cell response



CD8+ T cells accumulated but not efficiently infiltrated

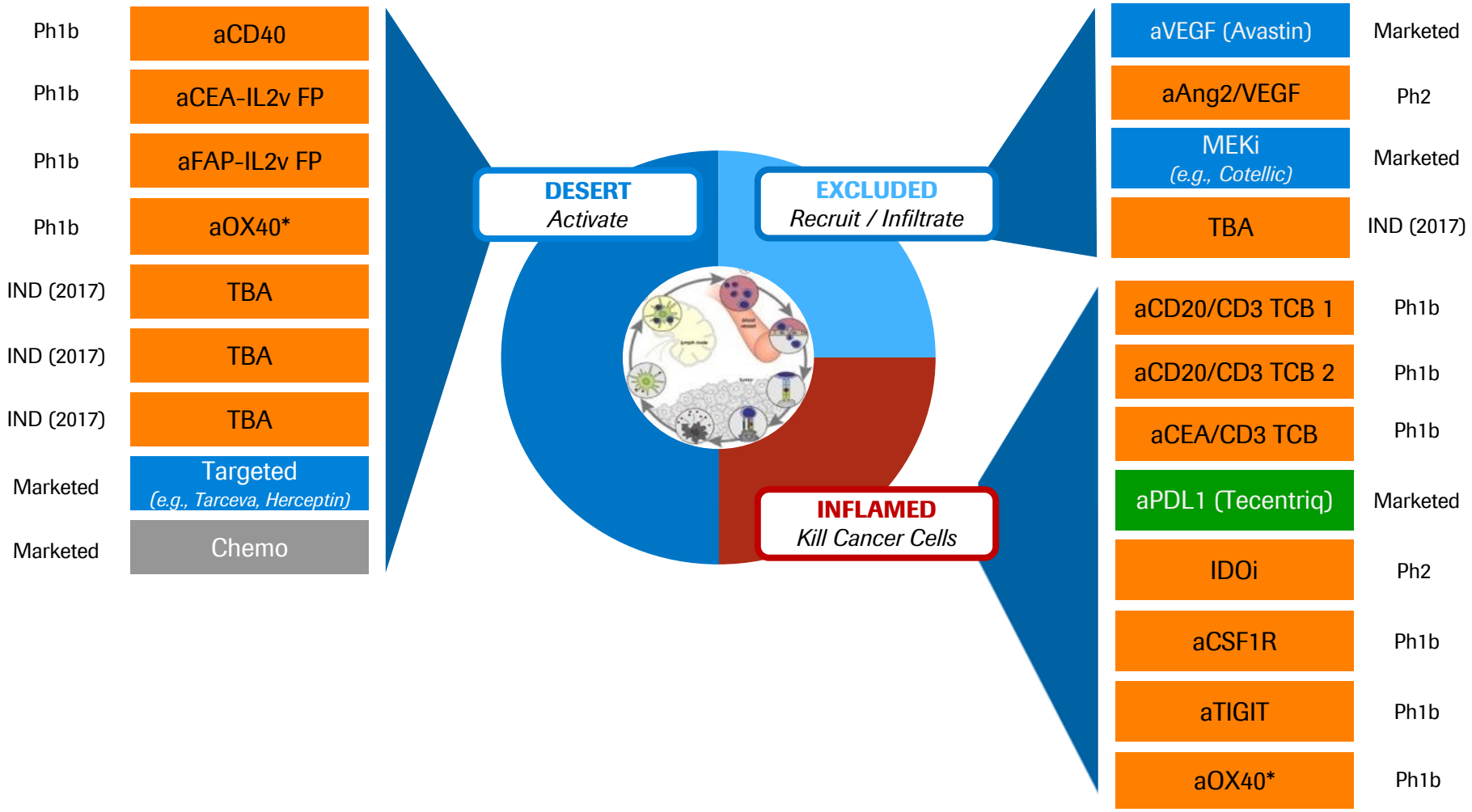
Bring T-cells in contact with cancer cells



CD8+ T cells absent from tumor and periphery

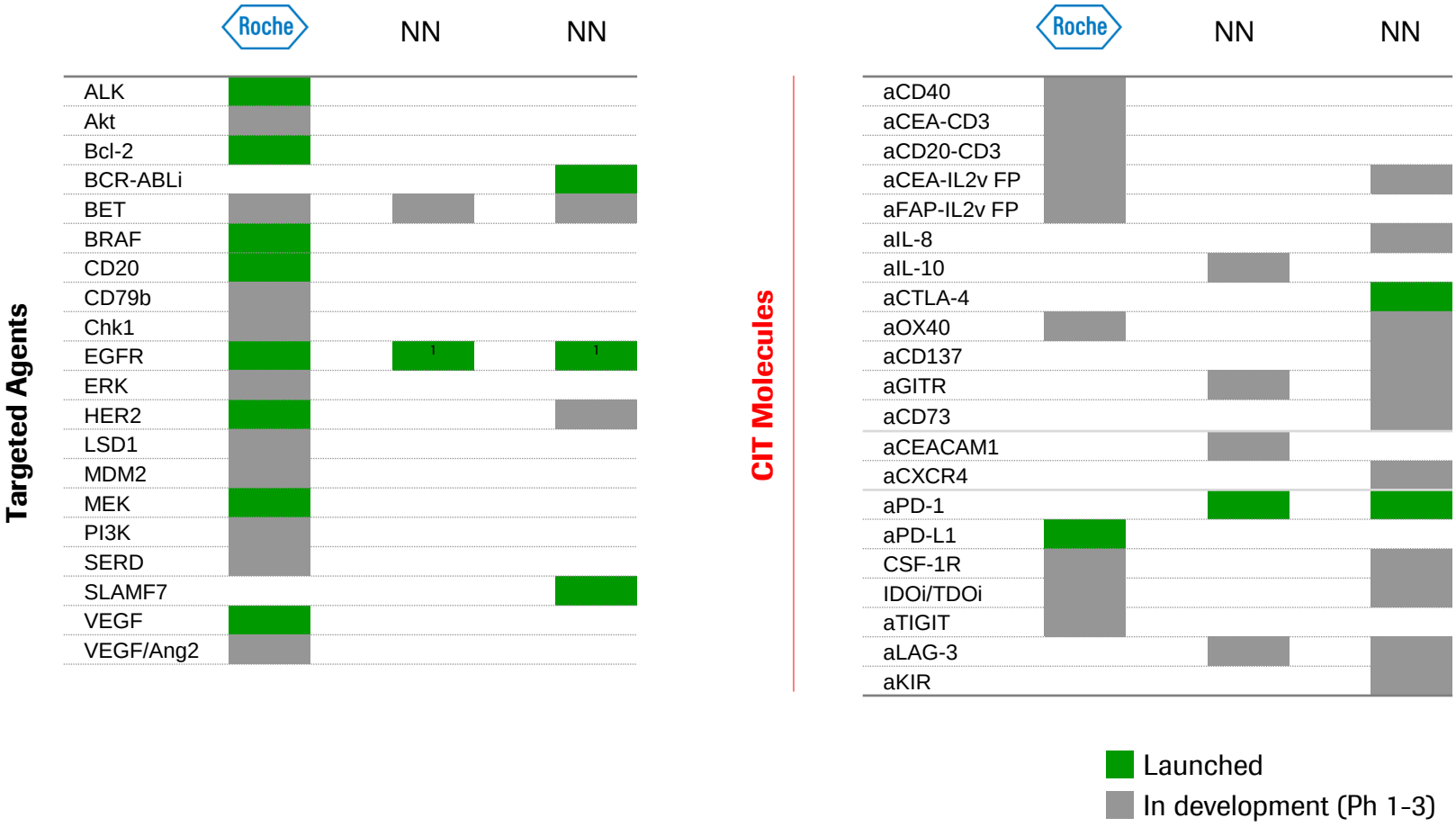
Increase number of antigen-specific T-cells or increase antigen presentation

A rich pipeline: We are investigating into multifold approaches across tumour phenotypes

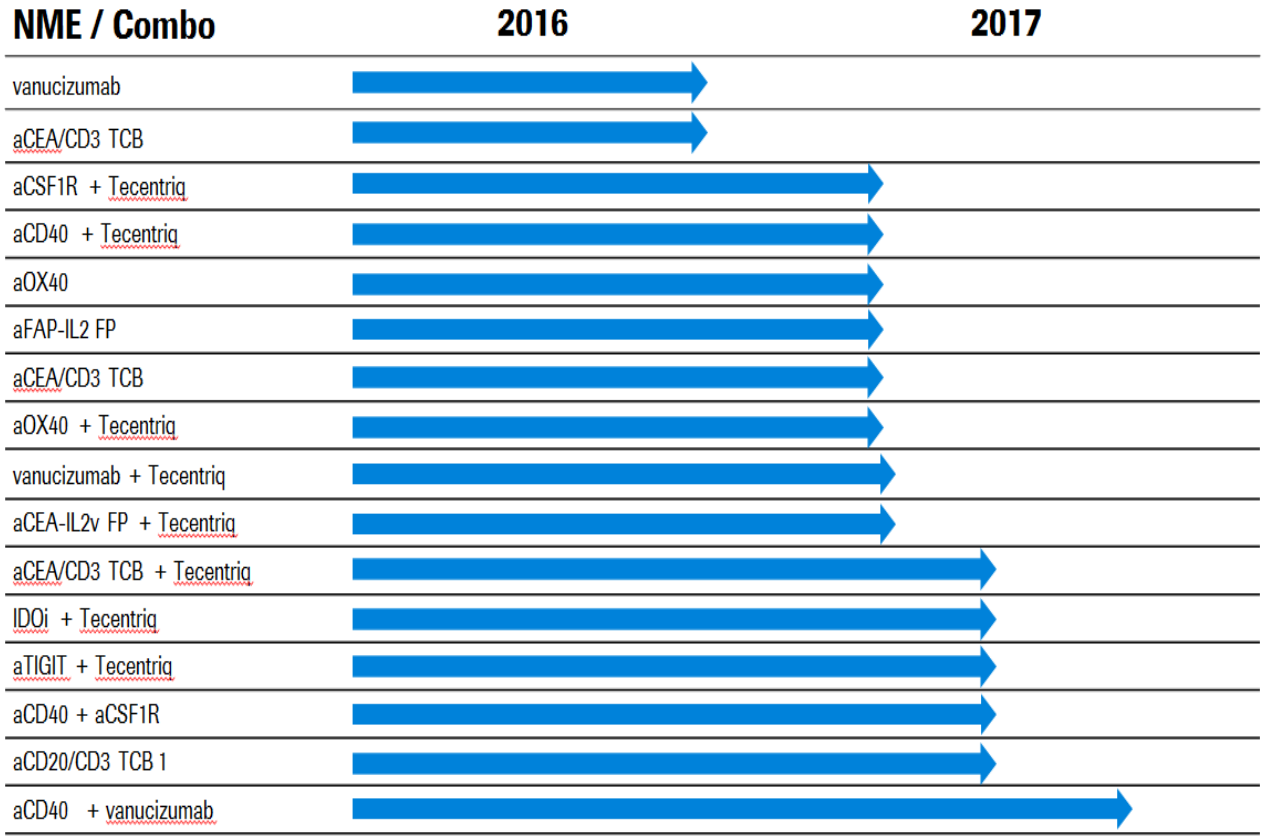


* Dual roles in T eff activation and T reg inhibition suggest OX40 activity in both desert and inflamed phenotypes;
IND=new investigational drug application; TBA=to be announced

Combinations: Roche with broadest portfolio of targeted and CIT agents



Cancer immunotherapy: In the near future, nine NMEs will be reading out*



NME=new molecular entity; *Timing based LPI or estimates from FPI and are subject to change; "data" indicates full data availability (vs interim readout)

A rich pipeline: Program by tumour 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**

Lung (NSCLC & SCLC)

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

Melanoma

Tecentriq	+Zelboraf ±Cotellic	Ph1

Ovarian

Tecentriq	+rucaparib*	Ph1

Breast (TNBC & HER2+)

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

RCC

Tecentriq	±Avastin	Ph2
Tecentriq	+Avastin	**Ph3**

Sarcoma

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

Colon

Tecentriq	+Cotellic (3L+)	**Ph3**
Tecentriq	+T-VEC*	Ph1

Hematological tumors

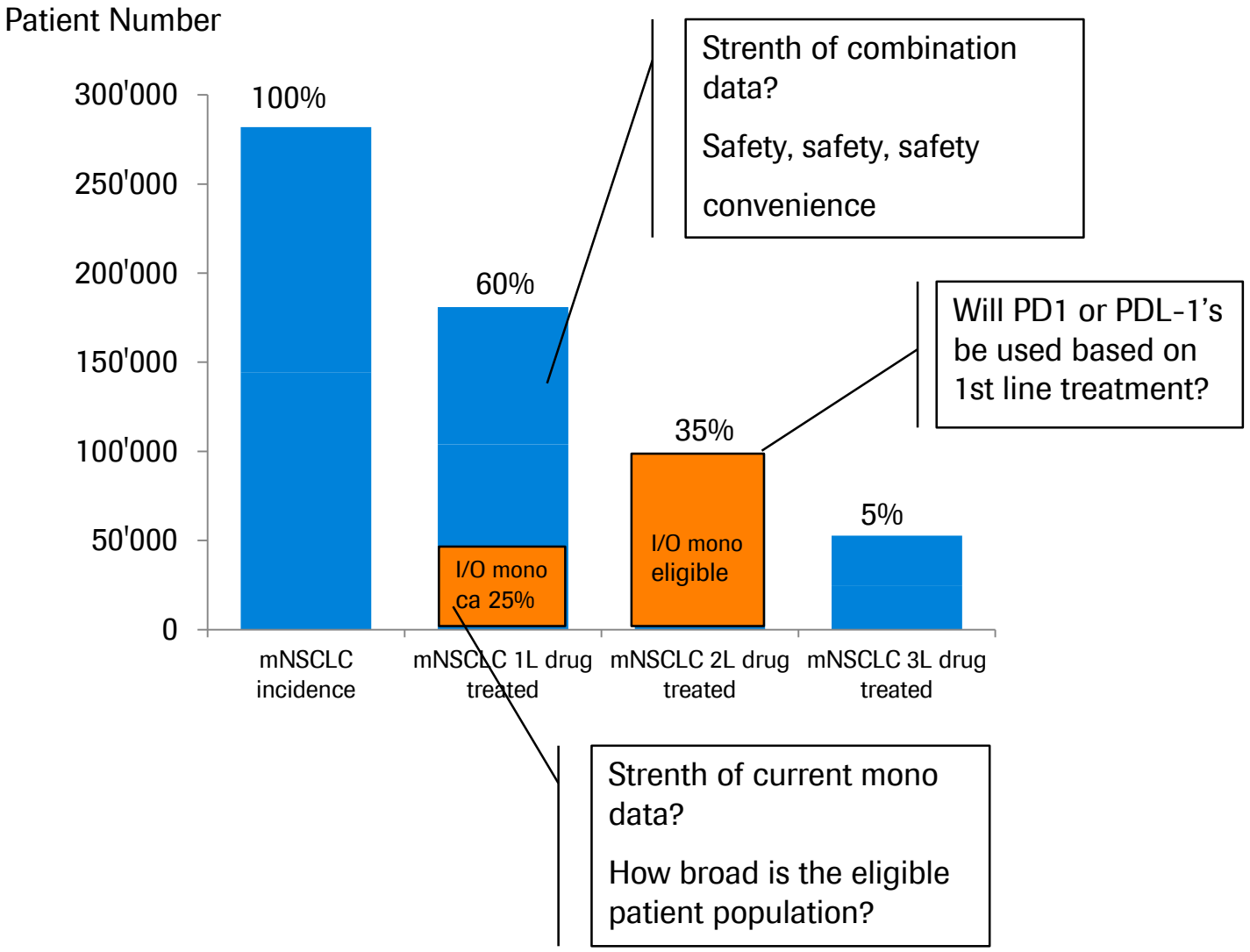
Tecentriq	±lenalidomide ±daratumumab*	(R/R MM)	Ph1
Tecentriq	±azacitidine	(MDS)	Ph1
Tecentriq	+Gazyva or +tazemetostat*	(R/R FL and DLBCL)	Ph1
Tecentriq	+Gazyva +polatuzumab	(R/R FL and DLBCL)	Ph2
Tecentriq	+Gazyva +lenalidomide	(R/R FL and DLBCL)	Ph1
Tecentriq	+Gazyva +bendamustin or CHOP	(1L FL and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

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

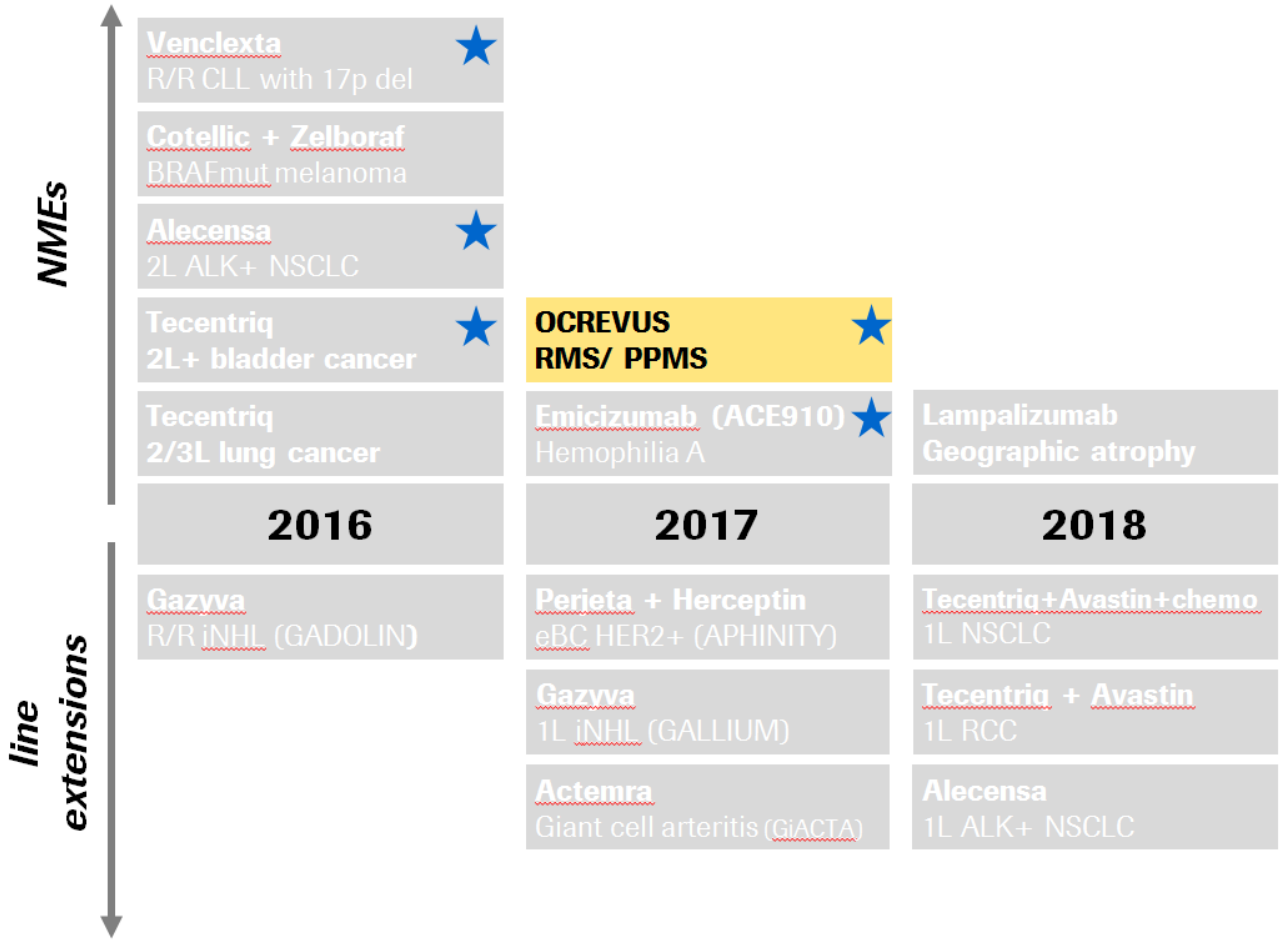
As of July 21, 2016

Treatment algorism may change quickly

Efficacy but also safety will play a major role



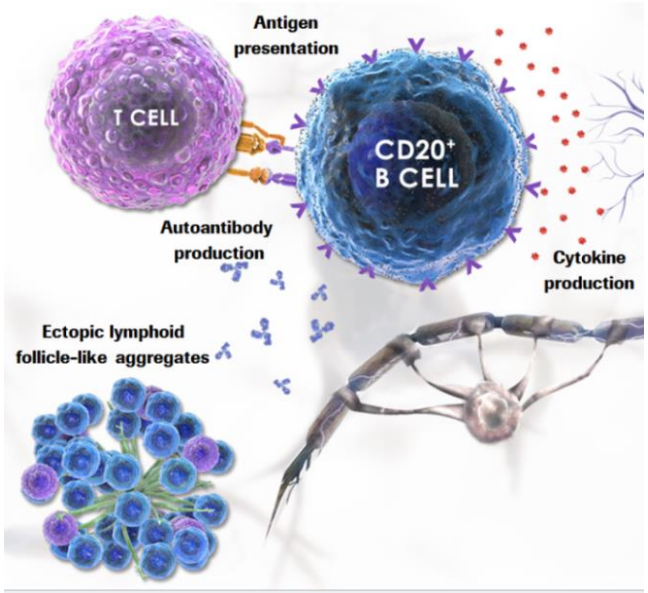
OCREVUS: First medicine active in RMS and PPMS



Oncology/ hematology | Neuroscience | Ophthalmology | Immunology | FDA Breakthrough Therapy Designation

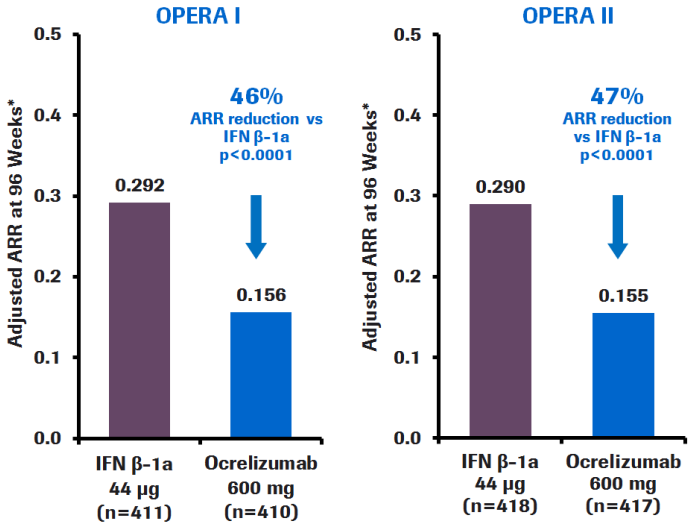
Outcome studies are event-driven: timelines may change. Standard approval timelines of 1 year assumed.

OCREVUS: Active in both RMS & PPMS

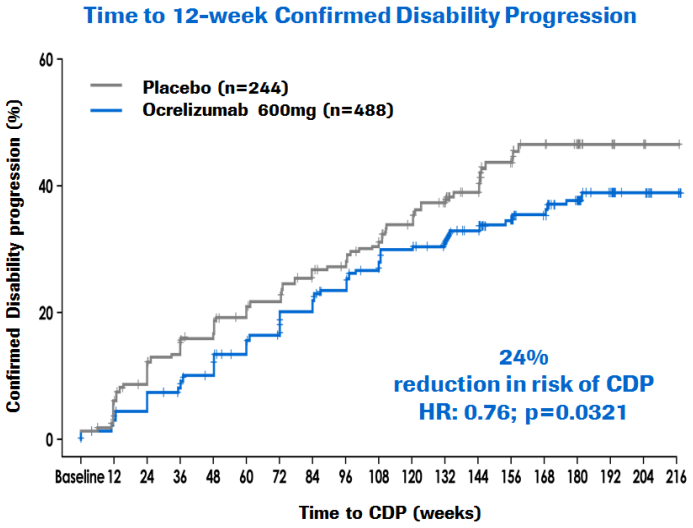


- Selective depletion of a B cell subset leaving the ability to generate new B cells intact
- Administered IV twice yearly

RMS

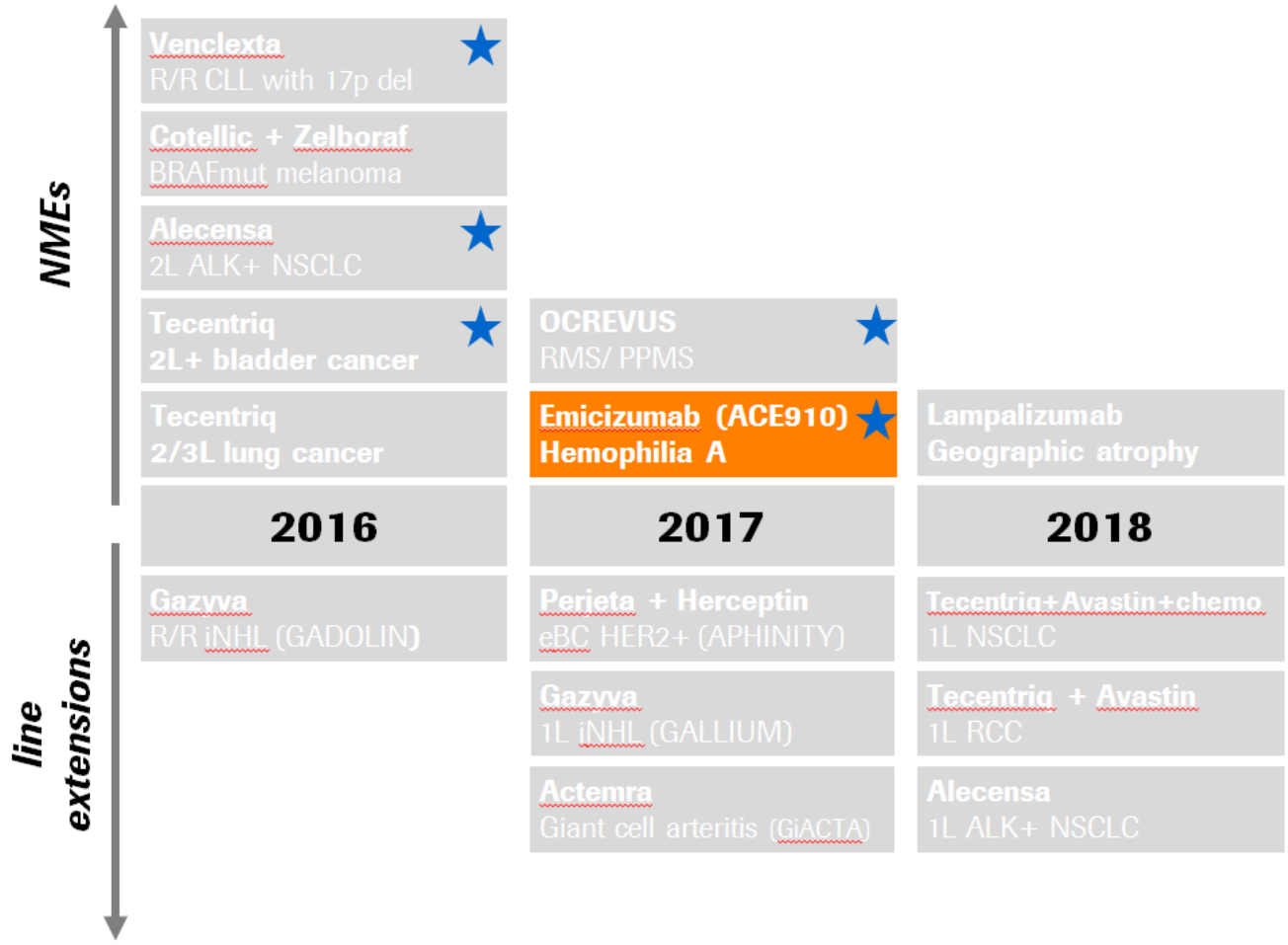


PPMS



RMS=relapsing forms of multiple sclerosis (MS) which includes patients with RRMS and SPMS with superimp
PPMS=primary progressive MS;

Emicizumab: Game changer in hemophilia A



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Emicizumab: Addressing the unmet need for inhibitor, and the treatment burden of for non-inhibitors patients

Indication Statement	Indicated for prophylaxis to prevent or reduce the frequency of bleeding episodes in adults and children **≥ 12** with Hemophilia A **with and without** FVIII inhibitors	
Dosing	Weight-Based 1x/week subcutaneously	
Indication (US data)	**1st Indication: Inhibitors** (Q1 2018)	**2nd Indication: Non-Inhibitors** (Q1 2019)
Primary Endpoints	Mean bleed rate reduction of >70% compared to by-passing agent therapy on demand	Mean bleed rate non-inferior to FVIII prophylaxis
ACE910 Value Proposition	Efficacy Benefit Expect median ABR is close to 0 Convenience SC vs. daily IV	Efficacy Benefit Similar to SOC reduce ABR to 0-2 Convenience SC & less frequent dosing
Best Standard of Care	**By-Passing Agents** ▪ FEIBA: iv 2 x/Daily ▪ Novo7: iv multiple /Daily	**Factor VIII Products** ▪ Biogen Eloctate: Long-Acting (LA) rFVIII, iv 2-3x/week – Still multiple infusions a week

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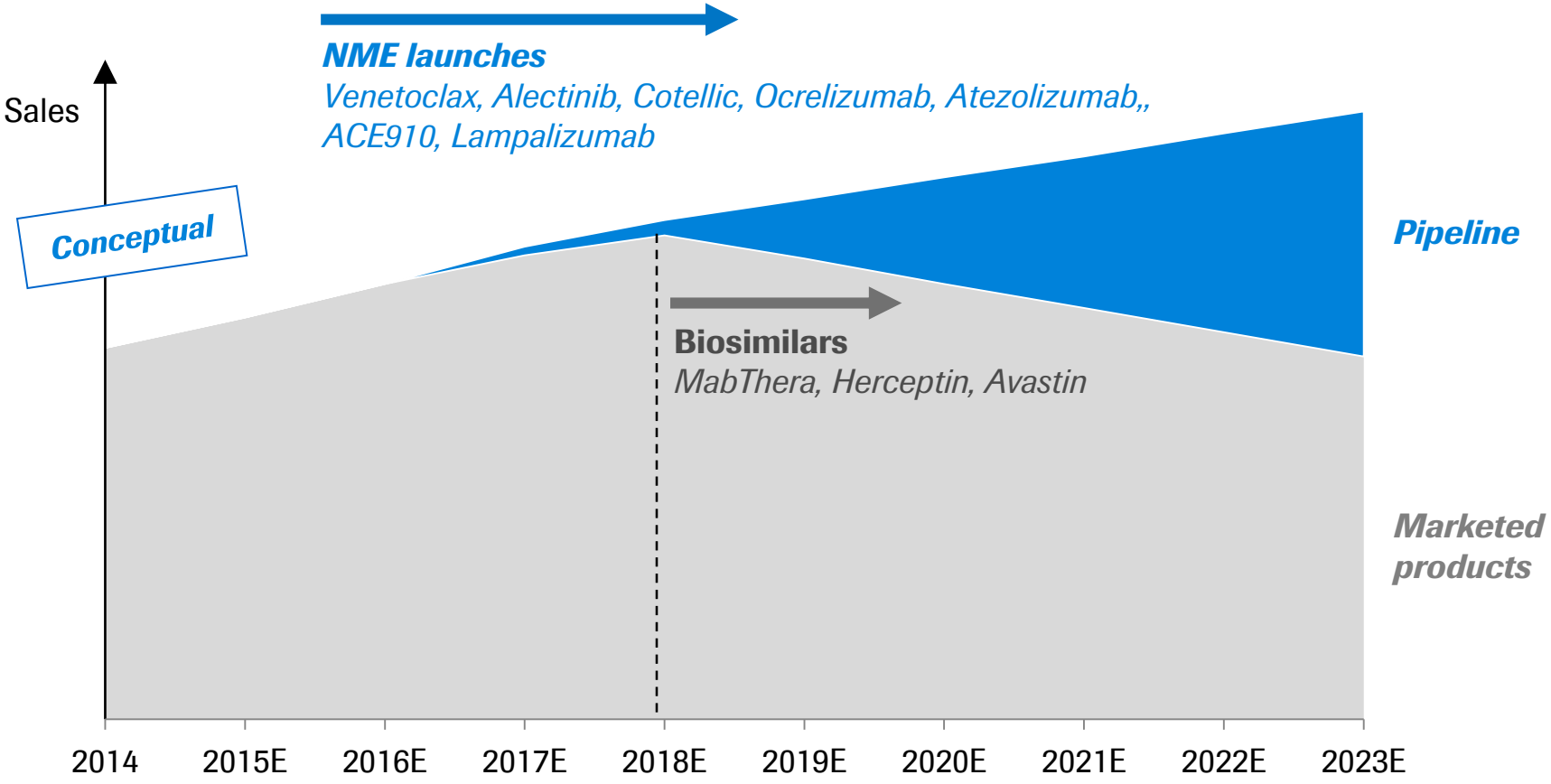
Positive outlook

Strong pipeline enabling continuous growth



2016 outlook

Group sales growth[1]	Low to mid-single digit
Core EPS growth[1]	Ahead of sales growth
Dividend outlook	Further increase dividend in Swiss francs

[1] At Constant Exchange Rates (CER)

Doing now what patients need next

Emicizumab addresses major medical needs for both inhibitor and non-inhibitor patients

Roche

Emicizumab (ACE 910)

NON-INHIBITOR

On-demand treatment	Prophylaxis treatment
1-3 times/bleeding event, IV	3 times/week, IV

Less frequent & SC injection

Inhibiting Factor VIII antibodies in 20-30% of the patients

INHIBITOR

Immune Tolerance Induction
70-80 % success rate
limitation due to very high cost and heavy burden for patients

No potential to induce FVIII inhibitor

On-demand treatment with by-passing agents	Prophylaxis with by-passing agents
2-3h intervals, IV	Every other day, IV

Potentially more effective prophylaxis