Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

Changes to the development pipeline
Q2 2013 update

New to Phase I	New to Phase II	New to Phase III	New to Registration
3 NMEs **RG7410** in metabolic diseases **RG7745** in infectious diseases **RG7842** in solid tumors **3 AIs** **RG7446** PD-L1+Zelboraf in metastatic melanoma **RG7446** PD-L1 + Avastin in solid tumors **RG7446** PD-L1 in solid tumors	**3 NMEs** **RG7853** ALK inhibitor in NSCLC **RG7446** PD-L1 MAb in mNSCLC **RG7601** Bcl-2 inh in CLL relapsed/refractory 17pdel	**3 AIs** **RG1273** Perjeta in HER2-positive gastric cancer **RG435** Avastin in recurrent cervical cancer **RG1569** Actemra in giant cell arteritis	**1 NME NDA submissions EU and US** **RG7159** obinutuzumab in CLL **1 AI submission to FDA** **RG1273** Perjeta in neoadjuvant HER2-positive breast cancer
Removed from Phase I	**Removed from Phase II**	**Removed from Phase III**	**Removed from Registration**
1 NME due to selection of alternative molecule **RG7112** MDM2 ant. in solid and hematological tumors	**1 NME** **RG7160** imgatuzumab (GA201, EGFR MAb) in solid tumors **2 AIs** **RG3638** onartuzumab in triple-neg mBC 1st/2nd line **SST** arbaclofen in autism spectrum disorder (opt-in opportunity)	**2 NMEs** **RG1439** aleglitazar CV risk reduction post ACS in type 2 diabetes; complete programme terminated **SST** arbaclofen in fragile X syndrome (opt-in opportunity) **1 NME outlicensed by Chugai** tofogliflozin (SGLT2) in type 2 diabetes	**1 NME EU approval** **RG3616** Erivedge in advanced basal cell carcinoma **1 AI EU+US approval** **RG1569** RoActemra/Actemra in polyarticular JIA **1 AI EU approval** **RG105** MabThera in ANCA associated vasculitis **1 AI US approval** **RG1415** Tarceva in NSCLC EGFR mut 1st line

Status as of June 30, 2013

Roche Group development pipeline

Phase I
(35 NMEs + 5 AIs)

Oncology

RG7116	HER3 MAb	solid tumors
RG7155	CSF-1R MAb	solid tumors
RG7167	MEK inh	solid tumors
RG7212	Tweak MAb	oncology
RG7221	Ang2-VEGF MAb	oncology
RG7304	Raf & MEK dual inh	solid tumors
RG7356	CD44 MAb	solid tumors
RG7388	MDM2 ant	solid & hem tumors
RG7420	MEK inh	solid tumors
RG7440	AKT inhibitor	solid tumors
RG7446	PDL1+Zelboraf	metastatic melanoma
RG7446	PDL1+Avastin	solid tumors
RG7446	PDL1	solid tumors
RG7450	Steap1 ADC	prostate ca
RG7458	MUC16 ADC	ovarian ca
RG7598	ADC	multiple myeloma
RG7599	NaPi2b ADC	oncology
RG7600	ADC	oncology
RG7601	Bcl-2 inh	hem tumors
RG7602	ChK1 inh	solid tum & lymphoma
RG7604	PI3K inh	solid tumors
RG7636	ETBR ADC	metastatic melanoma
RG7666	PI3k inh	glioblastoma 2L
RG7741	ChK1 inh(2)	solid tum and lymphoma
RG7842	-	solid tumors
CHU	PI3K inh	solid tumors
CHU	WT-1 peptide	cancer vaccine

Other disease areas

RG7624	IL-17 MAb	autoimmune diseases
CHU	IL-6 MAb	RA
CHU	CIM331	atopic dermatitis
RG7745*	-	infectious diseases
RG7795	TLR7 agonist	HBV
RG7410*		metabolic diseases
RG7697	GIP/GLP-1 dual ago	type 2 diabetes
RG1662	GABRA5 NAM	cogn. disorders
RG7129	BACE1 inh	Alzheimer's
RG7203	PDE10A inh	schizophrenia
RG7314	V1 receptor antag	autism
RG3645	Lucentis sust. deliv.	AMD/RVO/DME
CHU	FIXa /FX bispecific MAb	hemophilia A

*FPI Jul 2013

New Molecular Entity (NME)
Additional Indication (AI)

Oncology
Immunology
Infectious Diseases
CardioMetabolism
Neuroscience
Ophthalmology
Others

RG-No Roche Genentech managed
CHU Chugai managed

Status as of June 30, 2013

Roche Group development pipeline

Phase II
(25 NMEs + 10 AIs)

RG1273	Perjeta	HER2+ mBC 2nd line
RG3502	Kadcyla (T-DM1)	HER2+ gastric cancer
RG3616	Erivedge	operable BCC
RG3638	onartuzumab	mCRC 1st line
RG3638	onartuzumab	NSCLC non squamous 1st l
RG3638	onartuzumab	NSCLC squamous 1st line
RG3638	onartuzumab	glioblastoma 2nd line
RG7204	Zelboraf	papillary thyroid cancer
RG7321	pictilisib (PI3K inh)	solid tumors
RG7414	parsatuzumab (EGFL7 MAb)	solid tumors
RG7422	PI3K/mTOR inh	solid & hem tumors
RG7446	PD-L1 MAb	mNSCLC
RG7593	CD22 ADC	hem tumors
RG7596	CD79b ADC	hem tumors
RG7597	HER3/EGFR MAb	m. epithelial tumors
RG7601*	Bcl-2 inh	CLL rel/refract 17pdel
RG7853	ALK inhibitor	NSCLC
RG7686	glypican-3 MAb	liver cancer
RG1569	Actemra	systemic sclerosis
RG7413	etrolizumab	ulcerative colitis
RG7415	rontalizumab	systemic lupus erythem
RG7449	quilizumab	asthma
RG7128	mericitabine	HCV
RG7227	danoprevir	HCV
RG7667	-	CMV
RG7790	setrobuvir	HCV
RG1512	inclacumab	ACS/CVD
RG7652	PCSK9 MAb	metabolic diseases
RG1450	gantenerumab	Alzheimer's
RG1577	MAO-B inh	Alzheimer's
RG1578	mGlu2 NAM	depression
RG1678	bitopertin	obsessive compulsive dis.
RG7090	mGlu5 NAM	tx.resistant depression
RG7412	crenezumab	Alzheimer's
RG7417	lampalizumab (factor D)	geo. atrophy

*FPI Jul 2013

Phase III
(6 NMEs + 25 AIs)

RG435	Avastin	HER2+ BC adj
RG435	Avastin	HER2-neg. BC adj
RG435	Avastin	NSCLC adj
RG435	Avastin	high risk carcinoid
RG435[1]	Avastin	ovarian cancer 1st line
RG435	Avastin	rel. ovarian ca. Pt-resistant
RG435[1]	Avastin	rel. ovarian ca. Pt-sensitive
RG435	Avastin	cervical cancer recurrent
RG1273	Perjeta	HER2+ early BC
RG1273	Perjeta	HER2+ gastric cancer
RG1415	Tarceva	NSCLC adj
RG3502	Kadcyla (T-DM1)	HER2+ mBC 3rd line
RG3502	Kadcyla (T-DM1)	HER2+ mBC 1st line
RG3502	Kadcyla (T-DM1)	HER2+ early BC
RG3638	onartuzumab	NSCLC 2nd/3rd line
RG3638	onartuzumab	gastric cancer
RG7159	obinutuzumab	DLBCL
RG7159	obinutuzumab	iNHL relapsed
RG7159	obinutuzumab	iNHL front-line
RG7204	Zelboraf	m. melanoma adj
RG7421	cobimetinib (MEK inh)	m. melanoma
RG1569	Actemra	early RA
RG1569*	Actemra	giant cell arteritis
RG3637	lebrikizumab	severe asthma
RG3648	Xolair	chronic idiopathic urticaria
RG3806	oral octreotide	acromegaly
CHU	Suvenyl	enthesopathy
RG1594	ocrelizumab	RMS
RG1594	ocrelizumab	PPMS
RG1678	bitopertin	schiz neg symptoms
RG1678	bitopertin	schiz subopt control

Registration
(2 NMEs + 5 AIs)

RG105[2]	MabThera	NHL sc formulation
RG435[2]	Avastin	glioblastoma 1st line
RG597[2]	Herceptin	HER2+ BC sc form
RG1273[3]	Perjeta	HER2+ BC neoadj
RG3502[4]	Kadcyla (T-DM1)	HER2+ pretreat. mBC
RG7159	obinutuzumab	CLL
RG1569	Actemra	RA sc formulation

1 US only: ongoing evaluation for FDA submission
2 Submitted in EU
3 Submitted in US
4 Approved in US; submitted in EU

New Molecular Entity (NME)
Additional Indication (AI)

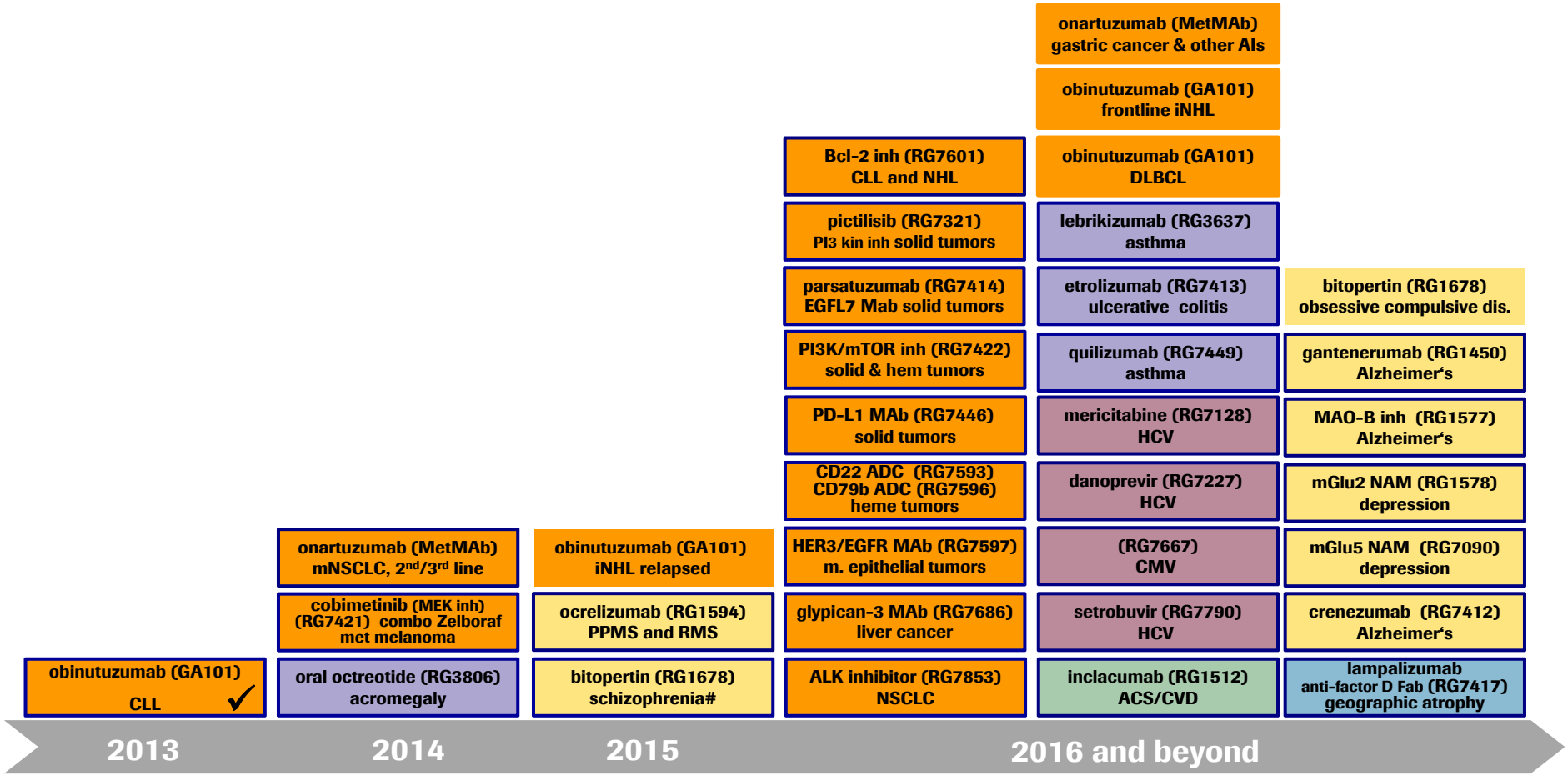
Oncology
Immunology
Infectious Diseases
CardioMetabolism
Neuroscience
Ophthalmology

RG-No Roche Genentech managed
CHU Chugai managed
RG105 MabThera is branded as Rituxan in US and Japan
RG1569 Actemra is branded as RoActemra in EU

Status as of June 30, 2013

NME submissions and their additional indications

Projects currently in phase 2 and 3



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

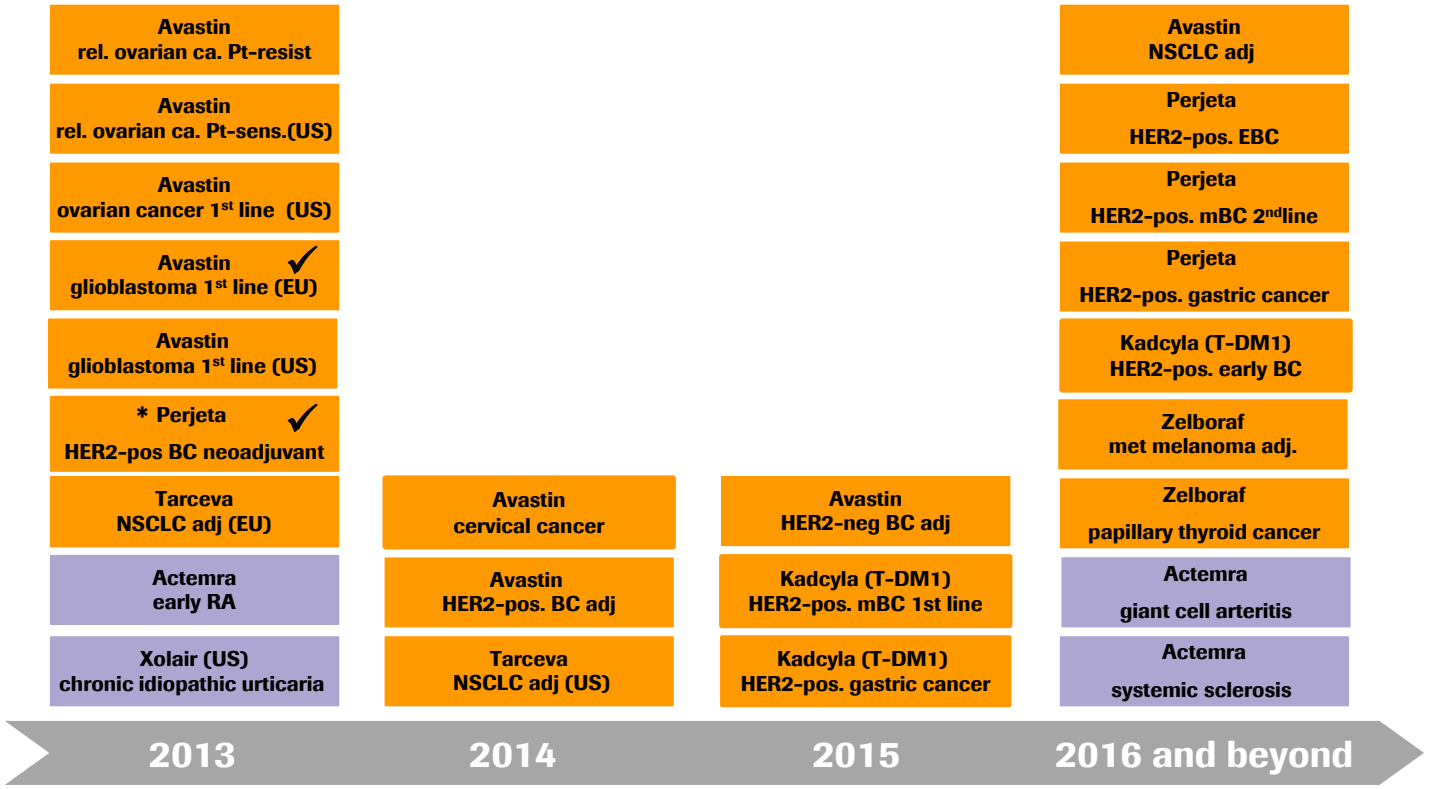
✓ indicates a submission which has occurred with regulatory action pending

negative symptoms and sub-optimal control

Status as of June 30, 2013

Submissions of additional indications for existing products

Projects currently in phase 2 and 3



✓ indicates submission to Health Authorities has occurred.

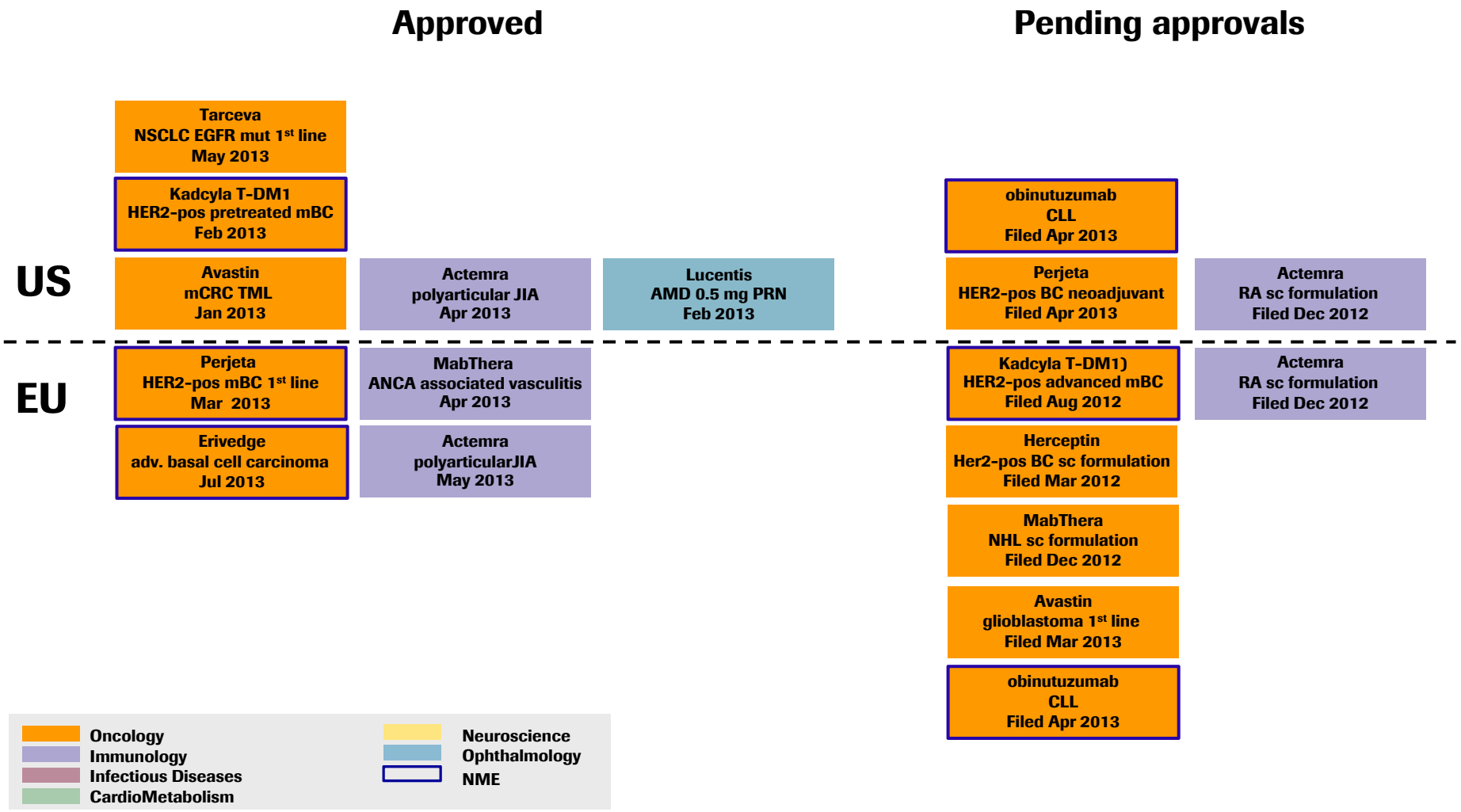
* Filing in the EU under discussion

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

Oncology
Immunology
Infectious diseases
CardioMetabolism
Neuroscience
Ophthalmology

Status as of June 30, 2013

Major granted and pending approvals 2013



Status as of June 30, 2013

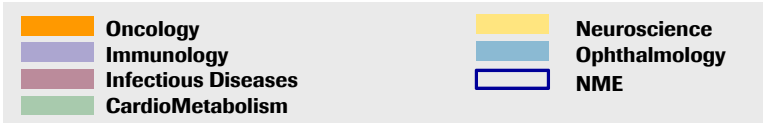
Major Chugai granted and pending approvals 2013

Approved

- Avastin malignant glioma Jun 2013
- Perjeta HER2-pos mBC Jun 2013
- Tarceva NSCLC EGFR mut 1st line Jun 2013
- Actemra sc formulation Mar 2013
- Boniva/Bonviva osteoporosis Jun 2013

Pending approvals

- Avastin ovarian cancer Filed Oct 2012
- Kadcyla HER2-pos mBC Filed Jan 2013



Status as of June 30, 2013

Doing now what patients need next

Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

MabThera/Rituxan

Oncology development programme

Patient population	Front-line follicular non-Hodgkin's lymphoma	Previously untreated chronic lymphocytic leukemia
Phase/study	**Phase III** **SABRINA** Subcutaneous study *Study being conducted ex-US*	**Phase Ib** **SAWYER** Subcutaneous study *Study being conducted ex-US*
# of patients	N=405	N=225
Design	▪ **ARM A:** MabThera iv plus chemotherapy (CHOP or CVP) ▪ **ARM B:** MabThera 1400mg SC plus chemotherapy (CHOP or CVP) *Two-stage design:* ○ Stage 1 (dose confirmation, N=127): PK primary endpoint ○ Stage 2 (N=280): Efficacy primary endpoint (ORR) *Responders will continue on maintenance every 8 weeks over 24 months*	▪ Two-stage design: - Stage 1 (dose-finding, N=55) - Stage 2 (N=170): CLL dose confirmation: ▪ **ARM A**: MabThera iv plus chemotherapy (fludarabine and cyclophosphamide) ▪ **ARM B**: MabThera 1600mg sc plus chemotherapy (fludarabine and cyclophosphamide)
Primary endpoint	▪ Pharmacokinetics, safety and efficacy	▪ Part 1: PK (dose selection) ▪ Part 2: PK of MabThera iv versus MabThera sc (arm A vs arm B)
Status	▪ Stage 1 primary endpoint (PK noninferiority) met ▪ Presented at ASH 2012 ▪ Filed with EMA Q4 2012	▪ FPI (stage 2) Q3 2012 ▪ Stage 1 data presented at ASH 2012

Subcutaneous MabThera : applies Enhanze technology, partnered with Halozyme
CHOP=Cyclophosphamide, Doxorubicin, Vincristine and Prednisolone; CVP=Cyclophosphamide, Vincristine and Prednisolone
ASH=American Society of Hematology.

MabThera/Rituxan

Immunology development programme

Patient population	ANCA-associated vasculitis
Phase/study	**Phase II/III** **RAVE***
# of patients	N=197
Design	▪ Non-inferiority efficacy and safety study of MabThera/Rituxan and glucocorticoids versus conventional therapy (cyclophosphamide)
Primary endpoint	▪ Induction of complete remission at 6 months, defined as a BVAS/WG of 0 and off glucocorticoid therapy
Status	▪ Data presented at ACR 2009 ▪ FDA approved use of Rituxan in WG and MPA in Q2 2011 ▪ Approved in EU Q2 2013

*In collaboration with Biogen Idec
WG - Wegener's Granulomatosis, MPA - Microscopic Polyangiitis
ACR=American College of Rheumatology

Avastin

Ovarian cancer clinical development programme

Patient population	Front-line metastatic ovarian cancer	
Phase/study	**Phase III GOG-0218**	**Phase III ICON7**
# of patients	N=1,873	N=1,528
Design	▪ **ARM A:** Paclitaxel and carboplatin for 6 cycles plus 5 cycles of concurrent placebo followed by placebo alone for up to 22 cycles (15 months) ▪ **ARM B:** Paclitaxel and carboplatin for 6 cycles plus 5 cycles of concurrent Avastin followed by placebo alone for up to 22 cycles (15 months) ▪ **ARM C:** Paclitaxel and carboplatin for 6 cycles plus 5 cycles of concurrent Avastin followed by Avastin alone for up to 22 cycles (15 months)	▪ **ARM A:** Paclitaxel and carboplatin for 6 cycles ▪ **ARM B:** Paclitaxel and carboplatin plus concurrent Avastin for 6 cycles followed by Avastin alone for up to 18 cycles (12 months)
Avastin dose	▪ 15 mg/kg q3 weeks	▪ 7.5 mg/kg q3 weeks
Primary endpoint	▪ Progression-free survival	▪ Progression-free survival
Status	▪ Study met its primary endpoint in Q1 2010 ▪ Data presented at ASCO 2010 and 2011 ▪ Results: NEJM 2011 Dec 29;365(26):2484-96	▪ Study met its primary endpoint Q3 2010 ▪ Data presented at ESMO 2010 and ASCO 2011 ▪ Results: NEJM 2011 Dec 29;365(26):2473-83
	▪ EMA approval Q4 2011 ▪ Re-evaluate FDA submission when final overall survival results from all phase III trials are available (expected 2013)	

ASCO=American Society of Clinical Oncology; ESMO=European Society for Medical Oncology
NEJM=New England Journal of Medicine

Avastin

Ovarian cancer clinical development programme

Patient population	Relapsed Platinum-sensitive ovarian cancer	Relapsed Platinum-resistant ovarian cancer
Phase/study	**Phase III OCEANS**	**Phase III AURELIA**
# of patients	N=484	N=361
Design	▪ **ARM A:** Carboplatin, gemcitabine, and concurrent placebo for 6-10 cycles, followed by placebo alone until disease progression ▪ **ARM B:** Carboplatin, gemcitabine, and concurrent Avastin for 6-10 cycles, followed by Avastin alone until disease progression.	▪ **ARM A:** Paclitaxel, topotecan or liposomal doxorubicin ▪ **ARM B:** Paclitaxel, topotecan or liposomal doxorubicin plus Avastin
Avastin dose	▪ 15 mg/kg q3 weeks	▪ 10 mg/kg q2 weeks or 15 mg/kg q3 weeks
Primary endpoint	▪ Progression-free survival	▪ Progression-free survival
Status	▪ Study met its primary endpoint Q1 2011 ▪ Data presented at ASCO 2011 ▪ EMA approval received Q4 2012 ▪ Re-evaluate FDA submission when final overall survival results from all phase III trials are available (expected 2013)	▪ Study met its primary endpoint Q2 2012 ▪ Data presented at ASCO 2012 ▪ EMA submission expected Q3 2013

ASCO=American Society of Clinical Oncology.

Avastin

Cervical cancer clinical development programme

Patient population	Stage IVB, recurrent or persistent cervical cancer
Phase/study	**Phase III** **GOG-240**
# of patients	N=452
Design	▪ **ARM A:** Paclitaxel, cisplatin ▪ **ARM B:** Paclitaxel, cisplatin plus Avastin ▪ **ARM C:** Paclitaxel, topotecan ▪ **ARM D:** Paclitaxel, topotecan plus Avastin
Avastin dose	▪ 15 mg/kg q3 weeks
Primary endpoint	▪ Progression-free survival
Status	▪ Study met its primary endpoint Q1 2013 ▪ Data presented at ASCO 2013 ▪ To be discussed with health authorities

ASCO=American Society of Clinical Oncology.

Avastin

High risk carcinoid, brain and breast cancer development programmes

Patient population	High risk carcinoid	Newly diagnosed glioblastoma	First-line HER2-negative metastatic breast cancer
Phase/study	**Phase III SWOG SO518**	**Phase III AVAglio**	**Phase III MERiDiAN**
# of patients	N=424	N=920	N=480
Design	▪ **ARM A:** Depot octreotide plus interferon alpha ▪ **ARM B:** Depot octreotide plus Avastin	▪ **ARM A:** Concurrent radiation and temozolomide plus placebo; followed by maintenance TMZ plus placebo for 6 cycles; then placebo until disease progression ▪ **ARM B:** Concurrent radiation and TMZ plus Avastin; followed by maintenance TMZ plus Avastin for 6 cycles; then Avastin (15mg/kg q3 weeks) monotherapy until disease progression	▪ **ARM A:** Paclitaxel + Avastin ▪ **ARM B:** Paclitaxel + Placebo
Avastin dose	▪ 15 mg/kg q3 weeks	▪ 10 mg/kg q2 weeks or 15 mg/kg q3 weeks	▪ 10 mg/kg q2 weeks
Primary endpoint	▪ Progression-free survival	▪ Progression-free survival ▪ Overall survival	▪ PFS in ITT ▪ PFS in patients with high plasma VEGF-A
Status	▪ Recruitment completed ▪ Expect data 2013	▪ Co-primary endpoint of PFS met Q3 2012 ▪ Overall survival data presented at ASCO 2013 ▪ Filed in EU Q1 2013	▪ FPI Q3 2012

TMZ=temozolomide; ASCO=American Society of Clinical Oncology

Avastin

Adjuvant clinical development programme

Patient population	Adjuvant lung cancer	Adjuvant breast cancer	
Phase/study	**Phase III** **ECOG 1505**	**Phase III** **ECOG 5103** HER2-negative	**Phase III** **BETH** HER2-positive
# of patients	N=1,500	N=4,950	N=3,600
Design	▪ **ARM A:** Cisplatin plus vinorelbine, docetaxel, gemcitabine or pemetrexed ▪ **ARM B:** Cisplatin plus vinorelbine, docetaxel, gemcitabine or pemetrexed plus Avastin up to 12 months	▪ **ARM A:** Anthracycline plus cyclophosphamide (AC) followed by paclitaxel ▪ **ARM B:** AC plus Avastin followed by paclitaxel plus Avastin ▪ **ARM C:** AC plus Avastin followed by paclitaxel plus Avastin, followed by Avastin up to 12 months	▪ **COHORT 1:** Docetaxel/ carboplatin plus Herceptin ± Avastin ▪ **COHORT 2:** Docetaxel plus Herceptin ± Avastin, followed by 5-fluorouracil, epirubicin, cyclophosphamide For both cohorts, patients receive Herceptin ± Avastin to complete one year of targeted therapy
Avastin dose	▪ 15 mg/kg q3 weeks	▪ 15 mg/kg q3 weeks	▪ 15 mg/kg q3 weeks
Primary endpoint	▪ Overall survival	▪ Disease-free survival	▪ Disease-free survival
Status	▪ FPI Q3 2007 ▪ Recruitment ongoing ▪ Expect data 2016	▪ Enrolment completed Q2 2011 ▪ Expect data 2014	▪ Enrolment completed Q4 2010 ▪ Expect data 2013

Herceptin

Standard of care for HER2-positive early breast cancer

Patient population	Early-stage HER2-positive breast cancer
Phase/study	**Phase III** **HANNAH** Subcutaneous study
# of patients	N=595
Design	▪ **ARM A:** Chemotherapy* concurrent with Herceptin 600mg SC q3w for the first 8 cycles ▪ **ARM B:** Chemotherapy* concurrent with Herceptin iv for the first 8 cycles **Chemotherapy = docetaxel then 5-FU, epirubicin, and cyclophosphamide*
Primary endpoint	▪ Serum concentration ▪ Pathologic complete response
Status	▪ Positive top-line data reported in October 2011 ▪ Data presented at EBCC 2012 ▪ Filed in EU Q1 2012 ▪ CHMP positive opinion received Q2 2013

Subcutaneous Herceptin : applies Enhanze technology, partnered with Halozyme.
EBCC=European Breast Cancer Conference.

Perjeta

First in a new class of HER dimerization inhibitors

Patient population	Neoadjuvant HER2-positive breast cancer		Adjuvant HER2-positive breast cancer
Phase/ study	**Phase II NEOSPHERE**	**Phase II TRYPHAENA**	**Phase III APHINITY**
# of patients	N=417	N=225	N=4,800
Design	▪ **ARM A:** Herceptin plus docetaxel ▪ **ARM B:** Perjeta (840mg loading, 420mg q3w) plus Herceptin and docetaxel ▪ **ARM C:** Perjeta plus Herceptin ▪ **ARM D:** Perjeta plus docetaxel	▪ **ARM A:** FEC followed by Taxane with Herceptin and pertuzumab (H+P given concurrently) ▪ **ARM B:** FEC followed by Taxane with Herceptin + pertuzumab (H+P given sequentially) ▪ **ARM C:** TCH + pertuzumab (H+P given concurrently)	▪ **ARM A:** Perjeta (840mg loading, 420 q3w) plus Herceptin for 52 weeks plus chemotherapy (6-8 cycles) ▪ **ARM B**: Placebo plus Herceptin (52 weeks) plus chemotherapy (6-8 cycles)
Primary endpoint	▪ Pathologic complete response (pCR)	▪ Safety	▪ Invasive disease-free survival (IDFS)
Status	▪ Primary endpoint met in 2010 ▪ Data presented at SABCS 2010 ▪ Biomarker data presented SABCS 2011	▪ Positive safety and efficacy data presented at SABCS 2011	▪ FPI Q4 2011
	▪ Filed in US Q2 2013 ▪ Priority review granted Q2 2013 ▪ EU submission under evaluation		

FEC = Fluorouracil, Epirubicin, and Cyclophosphamide; TCH = Docetaxel, Carboplatin, Herceptin; SABCS=San Antonio Breast Cancer Symposium.

Perjeta

First in a new class of HER dimerization inhibitors

Patient population	Second-line HER2-positive metastatic breast cancer	Advanced HER2-positive gastric cancer	Advanced HER2-positive gastric cancer
Phase/ study	**Phase II PHEREXA**	**Phase IIa JOSHUA**	**Phase III JACOB**
# of patients	N=450	N=30	N=780
Design	▪ **ARM A:** Herceptin plus Xeloda ▪ **ARM B:** Perjeta plus Herceptin and Xeloda	▪ **ARM A:** Perjeta (840mg loading, 420mg q3w) plus Herceptin and chemotherapy ▪ **ARM B:** Placebo plus Herceptin and chemotherapy	▪ **ARM A:** Perjeta (840mg loading, 420mg q3w) plus Herceptin and chemotherapy ▪ **ARM B:** Placebo plus Herceptin and chemotherapy
Primary endpoint	▪ Progression-free survival	▪ Safety, efficacy	▪ Overall survival
Status	▪ FPI Q1 2010	▪ Enrolment completed Q4 2012	▪ FPI Q2 2013

Kadcyla (T-DM1)

Evaluating new treatment options in HER2-positive breast cancer

Patient population	Patients who have progressed on HER2 targeted treatment	Pretreated HER2 pos. metastatic breast cancer[1]	Previously untreated HER2 pos. metastatic breast cancer
Phase/study	**Phase III TH3RESA**	**Phase III EMILIA**	**Phase III MARIANNE**
# of patients	N=600	N=991	N=1,092
Design	▪ **ARM A**: Kadcyla 3.6mg/kg q3w ▪ **ARM B**: physician's choice	▪ **ARM A:** Kadcyla 3.6mg/kg q3w ▪ **ARM B:** Xeloda plus lapatinib	▪ **ARM A:** Herceptin plus taxane ▪ **ARM B:** Kadcyla 3.6mg/kg q3w plus Perjeta ▪ **ARM C:** Kadcyla 3.6 mg/kg q3w plus placebo
Primary endpoint	▪ Progression free survival and overall survival	Co-primary endpoints: ▪ Progression-free survival (PFS) ▪ Overall survival	▪ Progression-free survival assessed by IRF
Status	▪ PFS endpoint met Q2 2013 ▪ Data to be submitted to ESMO 2013	▪ PFS data presented at ASCO 2012 ▪ OS data presented at ESMO 2012 ▪ Submitted for FDA and EMA approval Q3 2012 ▪ FDA approval granted Q1 2013	▪ Recruitment completed Q2 2012 ▪ Expect data 2014

In collaboration with ImmunoGen, Inc.

[1] Patients must have received prior treatment which included both: a taxane, alone or in combination with another agent, and Herceptin in the adjuvant, locally advanced, or metastatic setting.

ASCO=American Society of Clinical Oncology; ESMO=European Society for Medical Oncology

Kadcyla (T-DM1)

Evaluating new treatment options in HER2-positive breast and gastric cancers

Patient population	Neoadjuvant/ Adjuvant breast cancer	HER2-positive early breast cancer high-risk patients	HER2-positive advanced gastric cancer
Phase/study	**Phase II** Cardiac safety study	**Phase III** **KATHERINE**	**Phase II/III** **GATSBY**
# of patients	N=135	N=1,484	N=412
Design	▪ **Single ARM:** Kadcyla 3.6mg/kg q3w administered immediately following completion of anthracycline chemotherapy	▪ **ARM A:** Kadcyla 3.6mg/kg q3w ▪ **ARM B:** Herceptin	▪ **ARM A**: Kadcyla 3.6mg/kg q3w ▪ **ARM B**: Kadcyla 2.4mg/kg weekly ▪ **ARM C**: Docetaxel or paclitaxel
Primary endpoint	▪ Cardiac event rate ▪ Safety	▪ Invasive disease-free survival (IDFS)	▪ Phase II: Dose-finding ▪ Phase III: Overall survival
Status	▪ Completed enrolment Q2 2011 ▪ Interim data presented at ASCO 2012	▪ FPI April 2013	▪ FPI Q3 2012

In collaboration with ImmunoGen, Inc.
ASCO=American Society of Clinical Oncology

Tarceva

New approaches to treating lung cancer

Patient population	Adjuvant non-small cell lung cancer	First-line metastatic non-small cell lung cancer EGFR mutation-positive
Phase/study	**Phase III RADIANT**	**Phase III EURTAC**
# of patients	N=974 (2:1 randomisation)	N=174
Design	▪ Following surgical resection ± adjuvant chemotherapy: • **ARM A:** Tarceva up to 2 years • **ARM B:** Placebo up to 2 years	▪ **ARM A:** Tarceva ▪ **ARM B:** Chemotherapy (platinum-based doublet)
Primary endpoint	▪ Disease-free survival • EGFR IHC and/or FISH-positive	▪ Progression-free survival
Status	▪ Enrolment completed Q3 2010 ▪ Expect final results H2 2013	▪ Study met its primary endpoint Q1 2011 ▪ Data presented at ASCO 2011 ▪ EU granted approval in Q3 2011 ▪ FDA approval granted Q2 2013

Tarceva is a registered trademark of OSI Pharmaceuticals, LLC, a subsidiary of Astellas US, LLC
ASCO=American Society of Clinical Oncology.

Zelboraf®

A selective novel small molecule that inhibits mutant BRAF

Patient population	Adjuvant therapy in patients with resected cutaneous BRAF mutation positive melanoma	Previously treated papillary thyroid cancer BRAF mutation positive	Melanoma patients with brain metastases BRAF mutation positive
Phase/study	**Phase III BRIM8**	**Phase II**	**Phase II**
# of patients	N=725	N=50	N=132
Design	52-week treatment ▪ ARM A: Zelboraf 960mg bid ▪ ARM B: Placebo	▪ **Single ARM:** Zelboraf	▪ **Single ARM:** Zelboraf
Primary endpoint	▪ Disease-free survival	▪ Best overall response rate	▪ Overall response rate in the brain
Status	▪ FPI Q3 2012	▪ FPI Q2 2011	▪ FPI Q3 2011

In collaboration with Plexxikon, a member of Daiichi Sankyo Group
See also combinations with: cobimetinib (MEK inhibitor) and anti-PDL1 (RG7446)

Erivedge

A novel small molecule inhibitor of the hedgehog signaling pathway

Patient population	Advanced basal cell carcinoma	Operable basal cell carcinoma	Locally advanced or metastatic basal cell carcinoma
Phase/study	**Pivotal Phase II ERIVANCE BCC**	**Phase II**	**Phase II STEVIE**
# of patients	N=104	N=74	N=1,200
Design	▪ **Single ARM:** 150 mg Erivedge orally once daily until disease progression	▪ **Single ARM:** 150 mg Erivedge orally once daily	▪ **Single ARM:** 150 mg Erivedge orally once daily
Primary endpoint	▪ Overall response rate	▪ COHORT 1: Complete clearance (12 weeks Erivedge) ▪ COHORT 2: Durable complete clearance (12 weeks Erivedge) ▪ COHORT 3: Complete clearance (16 weeks Erivedge)	▪ Safety: incidence of adverse events
Status	▪ Data presented at EADO June 2011, ECCO/ESMO Sep 2011, EADV Oct 2011 ▪ EMA submission accepted Q4 2011 ▪ FDA granted approval Q1 2012 ▪ Data published NEJM June 2012 ▪ EU conditional approval received Q2 2013	▪ FPI Q4 2010 ▪ Cohort 1 data presented at Society for Investigative Dermatology (May 2012)	▪ FPI Q2 2011

In collaboration with Curis

EADO=European Association of Dermato-Oncology; ECCO/ESMO=European Cancer Organisation/European Society for Medical Oncology; EADV=European Academy of Dermatology and Venereology

Actemra/RoActemra

Interleukin 6 receptor inhibitor

Patient population	Early moderate-to-severe rheumatoid arthritis	Moderate-to-severe rheumatoid arthritis	Moderate-to-severe rheumatoid arthritis
Phase/study	**Phase III** **FUNCTION**	**Phase III** **SUMMACTA** Subcutaneous study	**Pivotal Phase III** **BREVACTA** Subcutaneous study
# of patients	N=1,162	N=1,262	N=656
Design	104 week treatment ▪ **ARM A**: Actemra IV 8 mg/kg q4w plus placebo MTX ▪ **ARM B:** Actemra IV 8 mg/kg q4w plus MTX ▪ **ARM C:** Actemra IV 4 mg/kg q4w plus MTX ▪ **ARM D:** MTX alone	▪ Add-on to DMARD therapy ▪ Weekly dosing for 104 weeks ▪ **ARM A:** Actemra SC 162mg weekly plus placebo IV q4w ▪ **ARM B:** Actemra IV 8mg/kg q4w plus placebo SC weekly	▪ Add-on to DMARD therapy ▪ Dosing every two weeks for 104 weeks ▪ **ARM A:** Actemra SC 162mg q2w ▪ **ARM B:** Placebo SC q2w
Primary endpoint	▪ DAS28 remission at 24 weeks, 1 year and 2 years	▪ ACR 20 at week 24	▪ ACR 20 at week 24
Status	▪ Primary endpoint met Q3 2012 ▪ Data presented at EULAR 2013 ▪ Filing expected 2013	▪ Primary endpoint met Q2 2012 ▪ Presented at ACR 2012 ▪ Filed in US and EU in Q4 2012	▪ Primary endpoint met Q3 2012 ▪ Presented at ACR 2012 ▪ Filed in US and EU in Q4 2012

In collaboration with Chugai
MTX=methotrexate; DMARD=Disease-Modifying Anti-Rheumatic Drugs
EULAR=The European League Against Rheumatism, ACR=American College of Rheumatology

Actemra/RoActemra

Interleukin 6 receptor inhibitor

Patient population	Systemic sclerosis	Polyarticular-course juvenile idiopathic arthritis
Phase/study	**Phase II** **faSScinate** Proof-of-concept study	**Phase III** **CHERISH**
# of patients	N=86	N=188
Design	Blinded 48-week treatment with weekly dosing: ▪**ARM A:** Actemra SC 162mg ▪**ARM B:** Placebo SC Open-label weekly dosing at weeks 49 to 96: ▪Actemra SC 162mg	▪ **Part I:** All patients receive Actemra 8mg/kg or 10mg/kg (iv) q4w for 16 weeks ▪ **Part II:** Patients with adequate response from Part I will be randomized to receive: •**ARM A:** Actemra 8mg/kg or 10mg/kg (iv) q4w for up to 24 weeks + SoC* •**ARM B:** Placebo + SoC* • **Part III:** All patients receive Actemra 8mg/kg or 10mg/kg (iv) q4w for up to another 64 weeks
Primary endpoint	▪ Change in modified Rodnan skin score (mRSS) at week 24 ▪ Safety	▪ Proportion of patients with a JIA ACR30 flare by week 40 relative to week 16
Status	▪ Recruitment completed Q2 2013 ▪ Expect data H1 2014	▪ Study met primary endpoint in Q1 2012 ▪ Submitted to FDA and EMA Q2 2012 ▪ Approved in US and EU Q2 2013

In collaboration with Chugai

*SoC=Standard of care: non-steroidal anti-inflammatory drugs, corticosteroids, methotrexate

Actemra/RoActemra

Interleukin 6 receptor inhibitor

Patient population	Giant Cell Arteritis
Phase/study	**Phase III** **GiACTA**
# of patients	N=250
Design	Part 1: 52-week blinded period ▪ **ARM A:** Actemra SC 162mg qw + 26 weeks prednisone taper ▪ **ARM B:** Actemra SC 162mg q2w + 26 weeks prednisone taper ▪ **ARM C:** Placebo+ 26 weeks prednisone taper ▪ **ARM D:** Placebo+ 52 weeks prednisone taper Part II: ▪ 104-weel open label extension – patients in remission followed off of the study drug; Patients with active disease receive open label Actemra SC 162mg qw
Primary endpoint	▪ Proportion of patients in sustained remission at week 52
Status	▪ FPI Jul 2013

In collaboration with Chugai

Xolair

Evaluating potential in chronic idiopathic urticaria, an IgE related disease

Patient population	**Chronic idiopathic urticaria** Patients who remain symptomatic despite treatment*		
Phase/study	**Phase III** **ASTERIA I**	**Phase III** **ASTERIA II**	**Phase III** **GLACIAL**
# of patients	N=300	N=300	N=320
Design	Add-on therapy to H1 anti-histamines 24 week treatment period (q4-week) • **ARM A:** Xolair 300 mg • **ARM B:** Xolair 150 mg • **ARM C:** Xolair 75 mg • **ARM D:** Placebo	Add-on therapy to H1 anti-histamines 12 week treatment period (q4-week) ▪**ARM A:** Xolair 300 mg ▪**ARM B:** Xolair 150 mg ▪**ARM C:** Xolair 75 mg ▪**ARM D:** Placebo	Add-on therapy to H1 anti-histamines, H2 blockers, and/or LTRA 24 week treatment period (q4-week) ▪**ARM A:** Xolair 300 mg ▪**ARM B:** Placebo
Primary endpoint	▪ Change from baseline in UAS7 weekly itch score at Week 12	▪ Change from baseline in UAS7 weekly itch score at Week 12	▪ Safety
Status	▪ Enrolment completed Q1 2012 ▪ Expect data presentation in 2013 ▪ Expect filing in 2013	▪ Enrolment completed Q4 2011 ▪ Presented at AAAAI 2013 ▪ Expect filing in 2013	▪ Enrolment completed Q1 2012 ▪ Data presented at EAACI-WAO 2013 ▪ Expect filing in 2013

In collaboration with Novartis

*Refractory to H1 anti-histamines, H2 blockers, and/or leukotriene receptor antagonists (LTRAs) at the time of randomization.

AAAAI=American Academy of Allergy, Asthma and Immunology

EAACI-WAO=European Academy of Allergy and Clinical Immunology – World Allergy Organization

Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

Onartuzumab (MetMAb, RG3638)

Anti-Met monovalent antibody that inhibits HGF-mediated activation

Patient population	2nd- and 3rd-line Met-positive metastatic NSCLC	1st line non-squamous NSCLC	1st line squamous NSCLC
Phase/study	**Phase III MetLung**	**Phase II**	**Phase II**
# of patients	N=490	N=260	N=110
Design	▪ **ARM A:** Tarceva plus onartuzumab ▪ **ARM B:** Tarceva plus placebo	**Cohort 1** ▪**Arm A**: Onartuzumab + Avastin + paclitaxel + platinum-based chemo (cisplatin or carboplatin) ▪**Arm B**: Placebo + Avastin + paclitaxel + platinum-based chemo (cisplatin or carboplatin) **Cohort 2** ▪**Arm A**: Onartuzumab + pemetrexed + platinum-based chemo (cisplatin or carboplatin) ▪**Arm B**: Placebo + pemetrexed + platinum-based chemo (cisplatin or carboplatin)	▪ **Arm A**: Onartuzumab + paclitaxel + platinum-based chemo (cisplatin or carboplatin) ▪ **Arm B**: Placebo + paclitaxel + platinum-based chemo (cisplatin or carboplatin)
Primary endpoint	▪ Overall survival	▪ Progression-Free Survival in the ITT population ▪ Progression-Free Survival in Met-positive patients	▪ Progression-Free Survival in the ITT population ▪ Progression-Free Survival in Met-positive patients
Status	▪ FPI Q1 2012	▪ FPI Q2 2012	▪ FPI Q3 2012

Onartuzumab (MetMAb, RG3638)

Anti-Met monovalent antibody that inhibits HGF-mediated activation

Patient population	Metastatic HER2-negative gastroesophageal cancer	Metastatic HER2-negative gastroesophageal cancer
Phase/study	**Phase III MetGastric**	**Phase II**
# of patients	N=800	N=120
Design	▪ **ARM A:** Onartuzumab plus mFOLFOX6 ▪ **ARM B:** Placebo plus mFOLFOX6	▪ **ARM A:** Onartuzumab plus mFOLFOX ▪ **ARM B:** Placebo plus mFOLFOX
Primary endpoint	▪ Overall survival in Met-positive patients	▪ Progression–free survival in ITT ▪ Progression-free survival in pre-specified Met-positive patients
Status	▪ FPI Q4 2012	▪ FPI Q3 2012

mFOLFOX6=modified FOLFOX (Folinic acid, Fluorouracil, Oxaliplatin)

Onartuzumab (MetMAb, RG3638)

Anti-Met monovalent antibody that inhibits HGF-mediated activation

Patient population	1st and 2nd-line triple negative metastatic breast cancer	1st-line metastatic colorectal cancer	Avastin-naïve recurrent glioblastoma
Phase	**Phase II**	**Phase II**	**Phase II**
# of patients	N=180	N=188	N=120
Design	▪ **ARM A:** Avastin and paclitaxel plus onartuzumab ▪ **ARM B:** Avastin and paclitaxel plus placebo ▪ **ARM C:** Paclitaxel plus onartuzumab	▪ **ARM A:** FOLFOX plus Avastin plus onartuzumab ▪ **ARM B:** FOLFOX plus Avastin plus placebo	▪ **Arm A**: Onartuzumab + Avastin ▪ **Arm B**: Placebo + Avastin ▪ **Arm C:** Onartuzumab +Placebo (enrolment to arm C suspended)
Primary endpoint	▪ Progression–free survival	▪ Progression–free survival in ITT ▪ Progression-free survival in pre-specified Met-positive patients	▪ Progression-Free Survival in the ITT population ▪ Progression-Free Survival in Met-positive population
Status	▪ Primary endpoint not met Q2 2013 ▪ Expect data presentation H2 2013	▪ FPI Q3 2011 ▪ Enrolment completed Q4 2012 ▪ Expect data 2014	▪ FPI Q3 2012

FOLFOX=Folinic acid, Fluorouracil, Oxaliplatin

Cobimetinib (RG7421, GDC-0973)

Selective small molecule inhibitor of mitogen-activated protein kinase kinase

Patient population	Previously untreated metastatic melanoma BRAF mutation positive	Metastatic melanoma BRAF mutation positive	Solid tumors	Solid tumors
Phase/study	**Phase III coBRIM**	**Phase Ib BRIM7**	**Phase Ib**	**Phase Ib**
# of patients	N=500	N=~100	N=212	N=108
Design	▪ **ARM A:** Zelboraf[1] plus cobimetinib ▪ **ARM B:** Zelboraf[1] plus placebo	▪ Dose escalation study evaluating Zelboraf[1] plus cobimetinib	▪ Dose escalation study evaluating cobimetinib plus pictilisib (PI3 Kinase inhibitor)	▪ Dose escalation study of cobimetinib in combination with RG7440[2] (AKT inhibitor)
Primary endpoint	▪ Progression-free survival	▪ Safety/PK	▪ Safety/PK	▪ Safety/PK
Status	▪ FPI Q1 2013 ▪ Expect data 2014	▪ FPI Q1 2011 ▪ Data presented at ESMO 2012 ▪ Updated data presentation at EADO and ESMO 2013	▪ FPI Q4 2009 ▪ Updated data presented at ASCO 2012	▪ FPI Q2 2012

In collaboration with Exelixis

[1]Zelboraf In collaboration with Plexxikon, a member of Daiichi Sankyo Group; [2]RG7440 in collaboration with Array BioPharma

ESMO=European Society for Medical Oncology; ASCO = American Society of Clinical Oncology; EADO=European Association of Dermato-Oncology

Obinutuzumab (GA101, RG7159)

Type II, glycoengineered anti-CD20 monoclonal antibody

Patient population	Front-line chronic lymphocytic leukaemia Patients with comorbidities	Indolent non-Hodgkin's lymphoma MabThera/Rituxan refractory
Phase/study	**Phase III** **CLL11**	**Phase III** **GADOLIN**
# of patients	N=781	N=360
Design	▪ **ARM A:** GA101 1000mg iv plus chlorambucil ▪ **ARM B:** MabThera/Rituxan plus chlorambucil ▪ **ARM C:** Chlorambucil alone	▪ **ARM A:** GA101 1000mg iv plus bendamustine ▪ **ARM B:** bendamustine
Primary endpoint	▪ Progression-free survival	▪ Progression-free survival
Status	▪ Recruitment completed Q2 2012 ▪ Stage 1 analysis (ARM A/B vs. ARM C) positive ▪ Stage 1 analysis presented at ASCO 2013 ▪ Breakthrough status and priority review granted Q2 2013 ▪ Filed globally Q2 2013	▪ FPI Q2 2010 ▪ Expect data 2015

In collaboration with Biogen Idec
ASCO = American Society of Clinical Oncology

Obinutuzumab (GA101, RG7159)

Type II, glycoengineered anti-CD20 monoclonal antibody

Patient population	Front-line indolent non-Hodgkin's lymphoma	Diffuse large B-cell lymphoma (DLBCL)	Previously untreated chronic lymphocytic leukaemia (CLL)
Phase/study	**Phase III GALLIUM**	**Phase III GOYA**	**Phase I GALTON**
# of patients	N=1,400	N=1,400	N=41
Design	▪ **ARM A:** GA101 1000mg iv plus chemotherapy followed by GA101 maintenance ▪ **ARM B:** MabThera/Rituxan plus chemotherpy followed by MabThera/Rituxan maintenance	▪ **ARM A:** GA101 1000mg iv plus CHOP ▪ **ARM B:** MabThera/Rituxan plus CHOP	▪ **Cohort A**: GA101 plus bendamustine ▪ **Cohort B:** GA101 plus fludarabine plus cyclophosphamide
Primary endpoint	▪ Progression-free survival	▪ Progression-free survival	▪ Safety
Status	▪ FPI Q3 2011 ▪ Expect data 2017	▪ FPI Q3 2011 ▪ Expect data 2015	▪ Recruitment completed ▪ Expect data presentation late 2013

In collaboration with Biogen Idec
CHOP=Cyclophosphamide, Doxorubicin, Vincristine and Prednisone

Bcl-2 inhibitor (RG7601, GDC-0199)

Novel small molecule Bcl-2 selective inhibitor

Patient population	Relapsed/Refractory CLL with 17p deletion	Relapsed CLL and SLL	Relapsed/Refractory CLL and NHL	Relapsed/Refractory or previously untreated CLL	Relapsed/Refractory or previously untreated CLL
Phase/study	**Phase II**	**Phase Ib**	**Phase I**	**Phase I**	**Phase I**
# of patients	N=100	N=50	N=52	N=70	N=70
Design	▪ Single-agent RG7601	▪ Dose-escalation study in combination with MabThera/Rituxan	▪ Dose-escalation study	▪ RG7601 in combination with MabThera/Rituxan and bendamustine	▪ RG7601 in combination with obinutuzumab (GA101)
Primary endpoint	▪ Safety/MTD	▪ Safety/MTD	▪ Safety/PK/Response rate	▪ Safety/MTD	▪ Safety/MTD
Status	▪ FPI Jul 2013	▪ FPI Q3 2012	▪ FPI Q2 2011 ▪ NHL data presented at ASH 2012 ▪ CLL and NHL data presented at ASCO 2013	▪ FPI Q2 2013	▪ FPI Q4 2012

Joint project with AbbVie in collaboration with WEHI (The Walter and Eliza Hall Institute)
CLL=Chronic Lymphocytic Leukemia; NHL=Non-Hodgkin's Lymphoma; SLL=Small Lymphocytic Lymphoma
ASH=American Society of Hematology; ASCO=American Society of Clinical Oncology

Bcl-2 inhibitor (RG7601, GDC-0199)

Novel small molecule Bcl-2 selective inhibitor

Patient population	Relapsed/Refractory multiple myeloma	Relapsed/Refractory multiple myeloma
Phase/study	**Phase I**	**Phase I**
# of patients	N=30	N=30
Design	Patients receiving Bortezomib and Dexamethasone as standard therapy: ▪ Dose escalation cohort: RG7601+bortezomib+dexamethasone ▪ Safety expansion cohort: RG7601+bortezomib+dexamethasone	▪ Dose escalation cohort ▪ Safety expansion cohort
Primary endpoint	▪ Safety/MTD	▪ Safety/MTD
Status	▪ FPI Q4 2012	▪ FPI Q4 2012

Joint project with AbbVie in collaboration with WEHI (The Walter and Eliza Hall Institute)

Anti-PDL1 (RG7446)

Novel approach in cancer immunotherapy

Patient population	Locally advanced or metastatic NSCLC PD-L1 positive	Solid tumors	Previously untreated metastatic melanoma BRAF mutation positive	Solid tumors
Phase/study	**Phase II**	**Phase I**	**Phase I**	**Phase I**
# of patients	N=100	N=68	N=44	N=344
Design	Single arm study ▪ 1200mg of Anti-PDL1 q3w for maximum of 16 cycles	▪ **ARM A**: Anti-PDL1 +Avastin ▪ **ARM B**: Anti-PDL1 +Avastin + chemotherapy	▪ Three-arm study with different doses of anti-PDL1-Zelboraf combination	▪ Dose escalation study
Primary endpoint	▪ Efficacy and safety	▪ Safety/PK	▪ Safety/PK	▪ Safety/PK
Status	▪ FPI Q2 2013	▪ FPI Q2 2012	▪ FPI Q3 2012	▪ FPI Q2 2011 ▪ Safety and PK data presented at AACR 2013 ▪ Initial efficacy data presented at ASCO 2013

AACR=American Association for Cancer Research; ASCO = American Society of Clinical Oncology

Lebrikizumab (RG3637)

A humanized monoclonal antibody designed to bind specifically to IL-13

	Severe uncontrolled adult asthma	
Patient population	**Adult patients whose asthma is uncontrolled with inhaled corticosteroids and a second controller medication**	
Phase/study	**Phase III LAVOLTA I**	**Phase III LAVOLTA II**
# of patients	N=1050	N=1050
Design	Subcutaneous lebrikizumab q4w on top of SOC for 52 weeks safety follow-up ▪**ARM A:** Lebrikizumab highest dose ▪**ARM B:** Lebrikizumab lowest dose ▪**ARM C:** Placebo Patients will be tested for periostin level	Subcutaneous lebrikizumab q4w on top of SOC for 52 weeks safety follow-up ▪**ARM A:** Lebrikizumab highest dose ▪**ARM B:** Lebrikizumab lowest dose ▪**ARM C:** Placebo Patients will be tested for periostin level
Primary endpoint	▪ Rate of asthma exacerbations during the 52-week placebo-controlled period	▪ Rate of asthma exacerbations during the 52-week placebo-controlled period
Status	▪ Expect FPI in Q3 2013	▪ Expect FPI in Q3 2013

Lebrikizumab (RG3637)

A humanized monoclonal antibody designed to bind specifically to IL-13

	Severe uncontrolled adult asthma	
Patient population	**Adult patients whose asthma is uncontrolled with inhaled corticosteroids and a second controller medication**	
Phase/study	**Phase IIb LUTE**	**Phase IIb VERSE**
# of patients	N=225	N=225
Design	Subcutaneous lebrikizumab q4w on top of SOC for 28 to 52 weeks with a 24 week safety follow-up ▪**ARM A:** Lebrikizumab highest dose ▪**ARM B:** Lebrikizumab middle dose ▪**ARM C:** Lebrikizumab lowest dose ▪**ARM D:** Placebo Patients will be tested for periostin level	Subcutaneous lebrikizumab q4w on top of SOC for 28 to 52 weeks with a 24 week safety follow-up ▪**ARM A:** Lebrikizumab highest dose ▪**ARM B:** Lebrikizumab middle dose ▪**ARM C:** Lebrikizumab lowest dose ▪**ARM D:** Placebo Patients will be tested for periostin level
Primary endpoint	▪ Rate of asthma exacerbations during the 52-week placebo-controlled period	▪ Rate of asthma exacerbations during the 52-week placebo-controlled period
Status	▪ Recruitment completed Q4 2012	▪ Recruitment completed Q4 2012

Aleglitazar (RG1439)

A balanced PPAR co-agonist - potential to reduce cardiovascular events in type 2 diabetes patients

Patient population	Post-ACS patients with Type 2 diabetes	Type 2 diabetes (US,China)	Stable CVD and type 2 diabetes or pre-diabetes
Phase/study	**Phase III** **AleCARDIO** Cardiovascular outcomes study	**Phase III** **AleGlucose program** Glycemic control studies	**Phase III** **AlePrevent** Cardiovascular outcomes study
# of patients	N=7,228	N≈1,400	N≈19,000
Design	▪ At least 2.5 years treatment period and until 950 events have occurred • **ARM A:** Aleglitazar (150 µg) on top of SoC • **ARM B:** Placebo on top of SoC	26 weeks treatment duration ▪**ARM A:** Aleglitazar (150 µg) monotherapy, add on to Metformin and Add on to Sulfonylurea with or without Metformin ▪**ARM B**: Placebo	At least 3 year treatment period and until 1260 events have occurred ▪**ARM A**: Aleglitazar 150 µg daily on top of SOC ▪**ARM B**: Placebo daily on top of SoC
Primary endpoint	▪ Reduction in cardiovascular mortality, non-fatal myocardial infarction and stroke (MACE)	▪ Reduction from baseline in HbA1c	▪ Reduction in cardiovascular mortality, non-fatal myocardial infarction and stroke (MACE)
Status	▪ All trials have been terminated due to safety signals and lack of efficacy observed during regular safety review of the AleCARDIO trial		

ACS=Acute Coronary Syndrome; MACE=Major Adverse Cardiac Events

Bitopertin (GlyT-1, RG1678)

A small molecule first-in-class glycin reuptake inhibitor (GRI)

Patient population	Sub-optimally controlled symptoms of schizophrenia		
Phase/study	**Phase III NIGHTLYTE**	**Phase III MOONLYTE**	**Phase III TWILYTE**
# of patients	N=600	N=600	N=600
Design	▪ Add-on therapy to anti-psychotics ▪ 52-week treatment period ▪ **ARM A:** bitopertin daily (10 mg) ▪ **ARM B:** bitopertin daily (20 mg) ▪ **ARM C:** Placebo	▪ Add-on therapy to anti-psychotics ▪ 52-week treatment period ▪ **ARM A:** bitopertin daily (10 mg) ▪ **ARM B:** bitopertin daily (20 mg) ▪ **ARM C:** Placebo	▪ Add-on therapy to anti-psychotics ▪ 52-week treatment period ▪ **ARM A:** bitopertin daily (5 mg) ▪ **ARM B:** bitopertin daily (10 mg) ▪ **ARM C:** Placebo
Primary endpoint	▪ PANSS positive symptom factor at week 12	▪ PANSS positive symptom factor at week 12	▪ PANSS positive symptom factor at week 12
Status	▪ FPI Q4 2010	▪ FPI Q4 2010	▪ FPI Q4 2010

PANSS=Positive and Negative Syndrome Scale

Bitopertin (GlyT-1, RG1678)

A small molecule first-in-class glycin reuptake inhibitor (GRI)

Patient population	Persistent, predominant negative symptoms of schizophrenia			Obsessive-compulsive disorder
Phase/study	**Phase III SUNLYTE**	**Phase III DAYLYTE**	**Phase III FLASHLYTE**	**Phase II**
# of patients	N=630	N=630	N=630	N=99
Design	▪ Add-on therapy to anti-psychotics ▪ 52-week treatment period ▪ **ARM A:** bitopertin (10 mg) ▪ **ARM B:** bitopertin (20 mg) ▪ **ARM C:** Placebo	▪ Add-on therapy to anti-psychotics ▪ 52-week treatment period ▪ **ARM A:** bitopertin (5 mg) ▪ **ARM B:** bitopertin (10 mg) ▪ **ARM C:** Placebo	▪ Add-on therapy to anti-psychotics ▪ 52-week treatment period ▪ **ARM A:** bitopertin (10 mg) ▪ **ARM B:** bitopertin (20 mg) ▪ **ARM C**: Placebo	▪ 16-week treatment period ▪ Background therapy of selective serotonin reuptake inhibitors (SSRI) ▪ **ARM A**: bitopertin daily (30 mg) ▪ **ARM B**: bitopertin daily (10 mg) ▪ **ARM C**: Placebo
Primary endpoint	▪ PANSS negative symptom factor at week 24	▪ PANSS negative symptom factor at week 24	▪ PANSS negative symptom factor at week 24	▪ Change in total score on Yale-Brown Obsessive Compulsive Scale
Status	▪ FPI Q4 2010	▪ Enrolment completed Q2 2013	▪ Enrolment completed Q2 2013	▪ FPI Q4 2012

PANSS=Positive and Negative Syndrome Scale

Ocrelizumab (RG1594)

2nd generation anti-CD20 monoclonal antibody

Patient population	Relapsing multiple sclerosis (RMS)		Primary progressive multiple sclerosis (PPMS)
Phase/study	**Phase III OPERA I**	**Phase III OPERA II**	**Phase III ORATORIO**
# of patients	N=800	N=800	N=630
Design	• 96-week treatment period: ▪ **ARM A:** Ocrelizumab 2x 300 mg iv followed by 600 mg iv every 24 weeks ▪ **ARM B:** Interferon β-1a	• 96-week treatment period: ▪ **ARM A:** Ocrelizumab 2x 300 mg iv followed by 600 mg iv every 24 weeks ▪ **ARM B:** Interferon β-1a	• 120-week treatment period: ▪ **ARM A:** Ocrelizumab 2x 300 mg iv every 24 weeks ▪ **ARM B:** Placebo
Primary endpoint	▪ Annualized relapse rate at 96 weeks versus Rebif	▪ Annualized relapse rate at 96 weeks versus Rebif	▪ Sustained disability progression versus placebo by Expanded Disability Status Scale (EDSS)
Status	▪ Enrolment completed Q1 2013	▪ Enrolment completed Q1 2013	▪ Enrolment completed Q1 2013

Gantenerumab (RG1450)

Fully human monoclonal antibody against amyloid-beta

Patient population	Prodromal Alzheimer's Disease
Phase/study	**Phase II/III** **SCarlet RoAD**
# of patients	N=770
Design	104-week subcutaneous treatment period •**ARM A:** Gantenerumab (225 mg) •**ARM B:** Gantenerumab (105 mg) •**ARM C:** Placebo
Primary endpoint	▪ Change in CDR-SOB at 2 years ▪ Sub-study: change in brain amyloid by PET at 2 years
Status	▪ FPI Q4 2010 ▪ Phase I PET data: Archives of Neurology 2012 Feb;69(2):198-207

In collaboration with Morphosys
CDR-SOB=Clinical Dementia Rating scale Sum of Boxes

Mericitabine (RG7128)

Nucleoside NS5B polymerase inhibitor added to approved protease inhibitors in prior null responders to IFN/RBV

Patient population	Treatment-naive and failure chronic hepatitis C Genotype 1 and 4	Treatment-naive and failure chronic hepatitis C Genotype 1 and 4
Phase/study	**Phase IIb DYNAMO 1***	**Phase IIb DYNAMO 2** Longer duration study
# of patients	N=120	N= 120
Design	• **ARM A:** Boceprevir + mericitabine (1000 mg BID) + Pegasys and Copegus for 24 weeks • **ARM B:** Boceprevir + mericitabine (1000 mg BID) + Pegasys and Copegus for 24 weeks followed by boceprevir+Pegasys and Copegus for 24 weeks • **ARM C :** Boceprevir+Pegasys and Copegus for 48 weeks	• **ARM A:** Telaprevir + mericitabine (1000 mg BID) + Pegasys and Copegus for 12 weeks, followed by + mericitabine (1000 mg BID) + Pegasys and Copegus for 12 weeks • **ARM B:** Telaprevir + mericitabine (1000 mg BID) + Pegasys and Copegus for 12 weeks, followed by + mericitabine (1000 mg BID) + Pegasys and Copegus for 12 weeks, followed by Pegasys and Copegus for 24 weeks • **ARM C :** Telaprevir + mericitabine (1000 mg BID) + Pegasys and Copegus for 12 weeks, followed by Pegasys and Copegus for 36 weeks • **ARM D**: Telaprevir + Pegasys and Copegus for 12 weeks, followed by Pegasys and Copegus for 36 weeks
Primary endpoint	▪ Sustained virological response (SVR)	▪ Sustained virological response (SVR)
Status	▪ Recruitment completed Q3 2012 ▪ Data submitted to AASLD 2013	▪ Recruitment completed Q3 2012 ▪ Data submitted to AASLD 2013

Mericitabine (RG7128) licensed from Pharmasset, now part of Gilead
* In collaboration with Merck

Mericitabine, danoprevir, setrobuvir

IFN-free combination of different direct-acting antivirals in treatment naïve patients

Patient population	Hepatitis C patients Treatment-naïve or null-responders to interferon-based treatment
Phase/study	**Phase II** **ANNAPURNA**
# of patients	N=180
Design	• **ARM A:** GT1a including setrobuvir, danoprevir, ritonavir, ribavirin and mericitabine • **ARM B:** GT1a including setrobuvir, danoprevir, ritonavir, ribavirin and mericitabine • **ARM C:** GT1a including setrobuvir, danoprevir, ritonavir and ribavirin • **ARM D:** GT1b including setrobuvir, danoprevir, ritonavir, ribavirin and mericitabine • **ARM E:** GT1b including setrobuvir, danoprevir, ritonavir and ribavirin
Primary endpoint	▪ Sustained virological response at week 12 after the end of the study treatment
Status	▪ FPI Q2 2012 ▪ Recruitment Part 1 completed in Q4 2012 ▪ Interim data submitted to AASLD 2013

Mericitabine (RG7128) licensed from Pharmasset, now part of Gilead; Danoprevir=RG7227; Setrobuvir=RG7790
AASLD=American Association for the Study of Liver Diseases

Danoprevir, mericitabine

Comparing IFN-free, IFN-based triple and IFN-based quad regimens in patients who failed IFN/RBV

Patient population	Treatment-experienced chronic hepatitis C patients*
Phase	**Phase IIb** **Matterhorn** Boosted Danoprevir in Triple, Quad and Interferon-free combinations
# of patients	N=381
Design	Danoprevir boosted by low dose ritonavir in IFN-free, triple and QUAD **Cohort A: partial responders:** ▪**ARM A1**: Danoprevir 100 mg bid+ Ritonavir 100mg bid+ mericitabine 1000 mg bid + Copegus for 24 weeks ▪**ARM A2:** Danoprevir 100 mg bid + Ritonavir 100mg bid+ Pegasys + Copegus for 24 weeks ▪**ARM A3:** Danoprevir 100 mg bid + Ritonavir 100mg bid + mericitabine 1000 mg bid + Pegasys + Copegus for 24 weeks **Cohort B: null responders:** ▪**ARM B1**: Danoprevir 100 mg bid + Ritonavir 100mg bid + mericitabine 1000 mg bid + Copegus for 24 weeks ▪**ARM B2:** Danoprevir 100 mg bid + Ritonavir 100mg bid+ mericitabine 1000 mg bid + Pegasys + Copegus for 24 weeks ▪**ARM B3:** Danoprevir 100 mg bid+ Ritonavir 100mg bid + mericitabine 1000 mg bid + Pegasys + Copegus for 24 weeks, followed by 24 weeks Pegasys + Copegus
Primary endpoint	▪ Sustained virological response 24 weeks after the end of study treatment
Status	▪ Recruitment completed Q3 2011 ▪ Preliminary data presented at AASLD 2012 ▪ Manuscript submission late 2013

Mericitabine (RG7128) licensed from Pharmasset, now part of Gilead; Danoprevir=RG7227
AASLD=American Association for the Study of Liver Diseases

Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

Oncology development programmes

Small molecules

Molecule	MDM2 antagonist (RG7112)		MDM2 (4) antagonist (RG7388)	
Patient population	**Advanced solid tumors**	**Hematologic neoplasms (Leukaemia)**	**Solid tumors**	**Acute myeloid leukemia**
Phase	**Phase I**	**Phase I**	**Phase I**	**Phase I**
# of patients	N=105	N=90	N=100	N=100
Design	• Multiple ascending dose-escalation study	• Multiple ascending dose-escalation study	• Multiple ascending dose-escalation study	• Multiple ascending dose-escalation study
Primary endpoint	• MTD	• MTD	• MTD	• MTD
Status	▪ Study completed Q2 2011 ▪ Phase Ib completed Q1 2013	▪ Study completed Q3 2012 ▪ Data presented at ASH 2012 ▪ Phase Ib completed Q1 2013	▪ FPI Q4 2011	▪ FPI Q1 2013
	▪ Decision made to discontinue RG7112 program and move RG7388 forward			

Oncology development programmes
Small molecules

Molecule	MEK inhibitor (CIF, RG7167)	Raf/MEK inhibitor (CKI27, RG7304)
Patient population	**Solid tumors**	**Solid tumors**
Phase	**Phase I**	**Phase I**
# of patients	N=144	N=52
Design	• Dose-escalation, followed by expansion into 4 cohorts in specific indications	• Dose-escalation to MTD
Primary endpoint	• MTD and tumor assessment	• MTD and tumor assessment
Status	▪ Recruitment into expansion cohorts completed Q4 2011 ▪ Data presented at EORTC-NCI-AACR 2012	▪ Initiated Q4 2008 ▪ Enrolment stopped in Q4 2010
Collaborator	Chugai	

EORTC=European Organisation for Research and Treatment of Cancer; AACR=American Association for Cancer Research

Oncology development programmes
Small molecules

Molecule	**ALK inhibitor** (RG7853, AF802)	
Patient population	**Non-small cell lung cancer**	
Phase	**Phase I**	**Phase II**
# of patients	N=90-100	N=215
Design	• Dose escalation to MTD	Patients with ALK mutation that failed crizotinib • **Part 1**: Dose escalation monotherapy • **Part 2**: Monotherapy, dose selected based on the results of Part 1
Primary endpoint	• Safety and efficacy	• Safety and efficacy
Status	▪ Study in crizotinib-naïve patients in Japan completed; crizotinib-failure patients in US ongoing ▪ Results: Lancet Oncology 2013 Jun;14(7):590-8	▪ FPI Q2 2013 ▪ Data to be submitted to ESMO 2013
Collaborator	Chugai	

ESMO=European Society for Medical Oncology

Oncology development programmes
Monoclonal antibodies

Molecule	**Anti-glypican-3 MAb** (GC33, RG7686)		**Anti-CD44 MAb** (RG7356)	
Patient population	**Metastatic liver cancer (hepatocellular carcinoma)**	**2L metastatic liver cancer (hepatocellular carcinoma)**	**Solid tumors**	**Acute myelogenous leukemia**
Phase	**Phase Ib**	**Phase II**	**Phase I**	**Phase I**
# of patients	N= 40-50	N=171	N=50-70	N=86
Design	▪ Study US monotherapy ▪ Study Japan monotherapy ▪ Dose escalation study in combo with SoC	Adaptive design study Double blind randomized 2:1 RG7686 : placebo Patients are stratified according to the level of GPC-3 expression in tumor	▪ Multiple ascending dose study with extension and imaging arm	▪ Multiple ascending dose study +/- cytarabine
Primary endpoint	▪ Safety and tolerability	▪ Progression-free survival	▪ Safety (MTD), PK, PD, preliminary clinical activity	▪ Safety (MTD), PK, PD, preliminary clinical activity
Status	▪ FPI Q4 2008 ▪ Dose escalation completed for US and Japan monotherapy studies ▪ Dose escalation ongoing for Ph1B combo with SoC	▪ Recruitment completed Q1 2013 ▪ Final results expected H2 2013	▪ FPI Q2 2011	▪ FPI Q3 2012
Collaborator	Chugai			

SoC=standard of care

Oncology development programmes
Monoclonal antibodies (continued)

Molecule	Anti-TWEAK MAb (RG7212)	GE-huMAb HER3 (RG7116)	
Patient population	**Solid tumors**	**Solid tumors**	**HER2-low and HER3-positive metastatic breast cancer**
Phase	**Phase I**	**Phase I**	**Phase I**
# of patients	N=50	N=105	N=40
Design	▪ Multiple ascending dose study	▪ Multiple ascending dose study with extension cohorts and imaging sub-study ▪ Combination arms with HER1-targeted therapies (erlotinib, cetuximab)	▪ Multiple ascending dose of RG7116 in combination with Perjeta and paclitaxel
Primary endpoint	▪ Safety, PK, PD	▪ Safety, PK	▪ Safety, PK
Status	▪ FPI Q3 2011	▪ FPI Q4 2011	▪ Expect FPI Q3 2013

Oncology development programmes
Monoclonal antibodies (continued)

Molecule	CSF-1R huMAb (RG7155)	Ang2-VEGF MAb (RG7221)
Patient population	Solid tumors	Solid tumors
Phase	Phase I	Phase I
# of patients	N≈95	N≈80
Design	▪ Multiple ascending dose study +/- paclitaxel with extension cohorts	▪ Multiple ascending dose study with extension cohort to assess the PD effects
Primary endpoint	▪ Safety, PK, PD & preliminary clinical activity	▪ Safety
Status	▪ FPI Q4 2011 ▪ Biomarker data presented at AACR 2013	▪ FPI Q4 2012

AACR=American Association for Cancer Research

Imgatuzumab (GA201, RG7160)

Glycoengineered enhanced ADCC/anti-EGFR monoclonal antibody

Patient population	Head and neck squamous cell carcinoma	2nd-line metastatic colorectal cancer
Phase	**Phase I** Mechanism of action study	**Phase II**
# of patients	N=45	N=160
Design	▪ **ARM A:** GA201 ▪ **ARM B:** Cetuximab	Treated until disease progression: **KRAS Wild Type** ▪**ARM A:** GA201 plus FOLFIRI ▪**ARM B:** Cetuximab plus FOLFIRI **KRAS Mutant** ▪**ARM A:** GA201 plus FOLFIRI ▪**ARM B:** FOLFIRI alone
Primary endpoint	▪ Pharmacodynamics	▪ PFS
Status	▪ Recruitment completed Q1 2012 ▪ Data presented at ASCO 2012	▪ Recruitment completed Q3 2012 ▪ No impovement in PFS in GA201-containing arms in either K-ras wild type or K-ras mutant populations

ASCO=American Society of Clinical Oncology.

Metabolic development programmes

Molecule	**Inclacumab** (P-selectin huMAb, RG1512)	
Patient population	**Prevention of saphenous vein graft disease** Patients undergoing coronary artery bypass graft (CABG) surgery	**Acute Coronary Syndrome (ACS)** Patients undergoing Percutaneous Coronary Intervention (PCI)
Phase/study	**Phase II** **SELECT-CABG**	**Phase II** **SELECT-ACS**
# of patients	N=384	N=516
Design	32-week treatment period ▪**ARM A:** Inclacumab (20 mg/kg) ▪**ARM B:** Placebo	Single infusion ▪**ARM A:** Inclacumab (5 mg/kg) ▪**ARM B**: Inclacumab (20 mg/kg) ▪**ARM C:** Placebo
Primary Endpoint	▪Sapheneous vein graft re-occlusion	▪Procedural damage (troponin)
Status	▪ Recruitment completed Q2 2012 ▪ Data expected in 2013	▪ FPI Q2 2011 ▪ Data presented at ACC 2013
Collaborator	Genmab	

ACC=American College of Cardiology

Metabolic development programmes

Molecule	GLP-1/GIP dual agonist (MAR709, RG7697)	NME (RG7410)
Patient population	Type 2 diabetes	Metabolic diseases
Phase/study	Phase I	Phase I
# of patients	N=48	N=24
Design	▪ **ARM A:** RG7697 SC ▪ **AMR B:** placebo	▪ Single dose of RG7410
Primary Endpoint	▪ Safety, PK	▪ Safety
Status	▪ MAD study ongoing	▪ FSI Jul 2013
Collaborator	Marcadia Biotech, Inc. acquisition	

FSI=First Subject In

Neuroscience development programmes

Molecule	Monoamine oxidase type B (MAO-B) inhibitor (RG1577, EVT-302)		BACE1 inhibitor (RG7129)
Patient population	**Alzheimer's Disease**		**Alzheimer's Disease**
Phase	**Phase IIb MAyflOwer RoAD**	**Phase I/II**	**Phase I**
# of patients	N=495	N=24	N=175
Design	• 52-week oral treatment • **ARM A:** RG1577 (dose 1) • **ARM B:** RG1577 (dose 2) • **ARM C:** placebo	• PET study in AD patients and healthy volunteers	▪ Single ascending dose-escalation study ▪ Multiple ascending dose-escalation study ▪ CSF biomarker study
Primary endpoint	▪ Changes in ADAS-Cog at 52 weeks	▪ Brain enzyme occupancy	▪ Safety ▪ Pharmacokinetics ▪ Pharmacodynamics
Status	▪ FPI Q4 2012	▪ Completed Q2 2013	▪ SAD: completed ▪ MAD: completed ▪ CSF: FPI completed
Collaborator	Evotec		Siena Biotech

Neuroscience development programmes

	Metabotropic glutamate receptor pathway			
Molecule	**mGlu2 Negative Allosteric Modulator (NAM)** (RG1578)	**mGlu5 Negative Allosteric Modulator (NAM)** (RG7090)		
Patient population	**Adjunctive Treatment of Major Depressive Disorder**	**Adjunctive Treatment of Major Depressive Disorder**	**Fragile X Syndrome**	
Phase/study	**Phase II ArtDeCo**	**Phase II Marigold**	**Phase II Fragxis**	**Phase II FoXtail**
# of patients	N=480	N=300	N=180	N=45 Pediatric patients
Design	▪ **ARM A:** RG1578 5 mg ▪ **ARM B:** RG1578 15 mg ▪ **ARM C:** RG1578 30 mg ▪ **ARM D:** Matching Placebo	▪ **ARM A:** RG7090 0.5 mg ▪ **ARM B:** RG7090 1.5 mg ▪ **ARM C:** Matching Placebo	▪ **ARM A:** RG7090 0.5 mg ▪ **ARM B:** RG7090 1.5 mg ▪ **ARM C :** Matching Placebo	▪ **ARM A:** RG7090 Dose A ▪ **ARM B:** RG7090 Dose B ▪ **ARM C :** Matching Placebo
Primary endpoint	▪ Efficacy - Montgomery Asberg Depression Rating Scale	▪ Efficacy - Montgomery Asberg Depression Rating Scale	▪ Efficacy, safety and tolerability	▪ Safety ▪ Exploratory efficacy and tolerability
Status	▪ Recruitment ongoing ▪ Expect data H1 2014	▪ Recruitment ongoing ▪ Expect data H2 2013	▪ Recruitment ongoing ▪ Expect data H1 2014	▪ Recruitment initiated ▪ Expect data H1 2014

Neuroscience development programmes

Molecule	GABRA5 negative allosteric modulator (NAM) (RG1662)		V1 receptor antagonist (RG7314)	PDE10A inhibitor (RG7203)
Patient population	**Down Syndrome**		**Autism**	**Schizophrenia**
Phase	**Phase I**	**Phase Ib**	**Phase I**	**Phase I**
# of patients	N=17	N=33	N=up to 24	N=53
Design	▪ Molecular and functional imaging study in individuals with DS and HV	▪ Multi-center, Randomized, Double-blind, Placebo-controlled, Multiple Dose Study in Individuals With Down Syndrome	• DDI study	• Double-blind, single-ascending dose, placebo controlled study • **ARM A**: RG7203 single ascending dose • **ARM B**: RG7203 single dose in fed and fasted state • **AMR C**: Placebo
Primary endpoint	▪ GABAA alpha5 receptor expression, occupancy and functional connectivity	▪ Safety, tolerability	▪ Safety, tolerability, PK and PD effects of multiple doses of RG7314 with a single dose of risperidone in healthy subjects	▪ Safety, PK
Status	▪ FPI Q3 2012	▪ FPI Q4 2011	▪ FPI Q4 2012 ▪ Study completed Q1 2013 ▪ Next study in preparation	▪ SAD completed ▪ MAD FPI Q2 2013

DS=Down Syndrome; HV=Healthy Volunteers, DDI=Drug-Drug Interaction

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Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

Oncology development programmes
Monoclonal antibodies

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	Angiogenic signaling		Growth factor signaling		
Molecule	**Parsatuzumab** (Anti-EGFL7 MAb, RG7414)		**Anti-HER3 EGFR DAF MAb** (RG7597)		
Patient population	**First-line metastatic non-small cell lung cancer**	**First-line metastatic colorectal cancer**	**Metastatic epithelial tumors**	**Metastatic/recurrent SCCHN***	**KRAS wild-type metastatic colorectal cancer**
Phase/study	**Phase II NILE**	**Phase II CONGO**	**Phase I**	**Phase II MEHGAN**	**Phase II DARECK**
# of patients	N=104	N=128	N=66	N=110	N=120
Design	▪ Parsatuzumab plus Avastin plus carbo/tax vs Avastin plus carbo/tax	▪ **ARM A:** Parsatuzumab plus Avastin plus FOLFOX ▪ **ARM B:** Avastin plus FOLFOX	▪ Dose escalation study	▪ **ARM A:** RG7597 ▪ **ARM B**: Cetuximab	▪ **ARM A:** RG7597+FOLFIRI ▪ **ARM B**: Cetuximab+FOLFIRI
Primary endpoint	▪ PFS	▪ PFS	▪ Safety/PK	▪ Progression-free survival	▪ Progression-free survival
Status	▪ Enrolment completed Q3 2012	▪ Enrolment completed Q3 2012	▪ FPI Q4 2010 ▪ PD data presented at AACR 2013	▪ Recruitment completed Q2 2013	▪ FPI Q4 2012

*SCCHN=Squamous Cell Carcinoma of the Head and Neck; AACR=American Association for Cancer Research
FOLFOX=Folinic acid, Fluorouracil, Oxaliplatin; FOLFIRI=Folinic acid, Fluorouracil, Irinotecan

Oncology development programmes
Antibody drug conjugates

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	Antibody drug conjugates (ADCs)		
Molecule	**Anti-STEAP1 ADC** (RG7450)	**Anti-MUC16 ADC** (RG7458)	**NME ADC** (RG7598)
Patient population	**Prostate cancer**	**Ovarian cancer**	**Multiple myeloma**
Phase	**Phase I**	**Phase I**	**Phase I**
# of patients	N=49	N=57	N=30-45
Design	▪ Dose escalation study	▪ Dose escalation study	▪ Dose escalation study
Primary endpoint	▪ Safety	▪ Safety/PK	▪ Safety
Status	▪ FPI Q1 2011 ▪ Data presented at ASCO 2013	▪ FPI Q2 2011 ▪ Data presented at AACR 2013	▪ FPI Q3 2011
Collaborator	Seattle Genetics and Agensys	Seattle Genetics	

AACR=American Association for Cancer Research, ASCO=American Society of Clinical Oncology

Oncology development programmes
Antibody drug conjugates (continued)

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	Antibody drug conjugates (ADCs)		
Molecule	**Anti-NaPi ADC ADC** (RG7599)	**NME ADC** (RG7600)	**Anti-ETBR ADC** (RG7636)
Patient population	**NSCLC and ovarian cancer**	**Pancreatic and ovarian cancer**	**Metastatic or unresectable melanoma**
Phase	**Phase I**	**Phase I**	**Phase I**
# of patients	N=70	N=66-96	N=44-64
Design	▪ Dose escalation study	▪ Dose escalation study	▪ Dose escalation study
Primary endpoint	▪ Safety	▪ Safety	▪ Safety
Status	▪ FPI Q2 2011 ▪ Safety and efficacy data presented at ASCO 2013	▪ FPI Q4 2011	▪ FPI Q1 2012
Collaborator	Seattle Genetics		

ASCO=American Society of Clinical Oncology

Oncology development programmes
ADC's for hematological cancers

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	Antibody drug conjugates (ADCs)		
Molecule	**Anti-CD22 ADC** (RG7593)	**Anti-CD22 ADC** (RG7593) vs. **Anti-CD79b ADC** (RG7596)	**Anti-CD79b** (RG7596)
Patient population	**Hematologic malignancies**	**Non-Hodgkin's Lymphoma**	**Hematologic malignancies**
Phase	**Phase I**	**Phase II**	**Phase I**
# of patients	N=76	N=120	N=99
Design	▪ Dose escalation study	▪ RG7593 plus Rituxan ▪ RG7596 plus Rituxan	▪ Dose escalation study
Primary endpoint	▪ Safety	▪ Safety and anti-tumor activity	▪ Safety
Status	▪ Recruitment completed Q4 2012 ▪ Dose escalation data presented at ASH 2012 ▪ Efficacy data presented at ICML 2013	▪ FPI Q3 2012	▪ Recruitment completed Q4 2012 ▪ Dose escalation data presented at ASH 2012 ▪ Efficacy data presented at ICML 2013
Collaborator	Seattle Genetics		

ASH=American Society of Hematology; ICML=International Conference on Malignant Lymphoma

Oncology development programmes
Small molecules

Genentech
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	PI3K signaling		
Molecule	**Pictilisib** (PI3 Kinase inhibitor , GDC-0941, RG7321)		
Patient population	**2L ER+ metastatic breast cancer**	**Previously untreated advanced or recurrent NSCLC**	**Locally recurrent or metastatic HER2-negative HR-positive breast cancer**
Phase	**Phase II** **FERGI**	**Phase II** **FIGARO**	**Phase II** **PEGGY**
# of patients	N=340	N=302	N=180
Design	▪ **ARM A:** Pictilisib plus hormonal therapy ▪ **ARM B:** RG7422 plus hormonal therapy ▪ **ARM C:** Hormonal therapy + placebo	▪ **ARM A:** Pictilisib + carboplatin + paclitaxel ▪ **ARM B:** Placebo + carboplatin + paclitaxel ▪ **ARM C:** Pictilisib+ carboplatin + paclitaxel + bevacizumab ▪ **ARM D:** Pictilisib+ carboplatin + paclitaxel + bevacizumab	▪ **ARM A**: Pictilisib+ paclitaxel ▪ **ARM B**: Placebo + paclitaxel
Primary endpoint	▪ Progression-free survival	▪ Progression-free survival	▪ Progression-free survival
Status	▪ FPI Q3 2011	▪ FPI Q1 2012	▪ FPI Q1 2013

Oncology development programmes
Small molecules (continued)

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	PI3K signaling		
Molecule	**PI3 Kinase inhibitor** (GDC-0032, RG7604)		**PI3 Kinase inhibitor** (GDC-0084, RG7666)
Patient population	**Solid tumors and HER2-negative HR-positive breast cancer**	**HER2-negative locally recurrent or metastatic breast cancer**	**Progressive or recurrent high-grade glioma**
Phase	**Phase I/II**	**Phase I**	**Phase I**
# of patients	N=260	N=65	N=68
Design	**Phase I** ▪ RG7604 ▪ RG7604 plus letrozole or fulvestrant **Phase II** ▪ RG7604 plus fulvestrant	▪ RG7604 plus docetaxel ▪ RG7604 plus paclitaxel	▪ Dose escalation study
Primary endpoint	▪ Safety/PK/efficacy	▪ Safety	▪ Safety/PK
Status	▪ FPI Q1 2011 ▪ Pre-clinical and clinical data presented at AACR 2013	▪ FPI Q2 2013	▪ FPI Q2 2012

AACR=American Association for Cancer Research

Oncology development programmes
Small molecules (continued)

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	PI3K signaling			
Molecule	**PI3 Kinase/mTOR dual inhibitor** (GDC-0980, RG7422)			
Patient population	**Renal cell carcinoma**	**2L ER+ metastatic breast cancer**	**Persistent or recurrent endometrial carcinoma**	**2L Castration-resistant prostate cancer**
Phase	**Phase II ROVER**	**Phase II FERGI**	**Phase II MAGGIE**	**Phase Ib/II**
# of patients	N=80	N=340	N=50	N=262
Design	• **ARM A:** RG7422 • **ARM B**: Everolimus	▪ **ARM A:** pictilisib plus hormonal therapy ▪ **ARM B:** RG7422 plus hormonal therapy ▪ **ARM C:** Hormonal therapy + placebo	▪ Single-arm RG7422	▪ **ARM A**: RG7440 + abiraterone ▪ **ARM B**: RG7422 + abiraterone ▪ **ARM C**: Placebo + abiraterone
Primary endpoint	▪ PFS	▪ PFS	▪ PFS	▪ Safety (Ph Ib) ▪ PFS (Ph II)
Status	▪ Enrolment completed Q3 2012	▪ FPI Q3 2011	▪ Enrolment completed Q3 2012	▪ FPI Q1 2012

Oncology development programmes
Small molecules (continued)

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Molecule	**AKT inhibitor** (GDC-0068, RG7440)			
Patient population	**Solid tumors**	**2L Castration-resistant prostate cancer**	**Solid tumors**	**1L metastatic gastric or gastroesophageal junction adenocarcinoma**
Phase	**Phase Ib**	**Phase Ib/II**	**Phase Ib**	**Phase II**
# of patients	N=90	N=262	N=62	N=120
Design	Dose escalation with: ▪**ARM A:** docetaxel or ▪**ARM B:** fluoropyrimidine plus oxaliplatin or ▪**ARM C:** paclitaxel	▪ **ARM A**: RG7440 + abiraterone ▪ **ARM B**: RG7422 + abiraterone ▪ **ARM C**: Placebo + abiraterone	▪ Dose escalations study of cobimetinib (MEK inhibitor)* in combination with RG7440	▪ **ARM A:** RG7440 + mFOLFOX6 ▪ **ARM B:** Placebo + mFOLFOX6
Primary endpoint	▪ Safety	▪ Safety (Ph IB) ▪ PFS (Ph II)	▪ Safety/PK	
Status	▪ FPI Q3 2011 ▪ Data presented at ASCO and ESMO 2012	▪ FPI Q1 2012	▪ FPI Q2 2012	▪ Expect FPI in Q3 2013
Collaborator	Array BioPharma			

*Cobimetinib in collaboration with Exelixis
ASCO=American Society of Clinical Oncology; ESMO=European Society for Medical Oncology
mFOLFOX6=modified FOLFOX (Folinic acid, Fluorouracil, Oxaliplatin)

Oncology development programmes
Small molecules (continued)

Genentech
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Molecule	**MEK inhibitor** (GDC-0623, RG7420)	**ChK1 inhibitor** (GDC-0425, RG7602)	**ChK1 inhibitor** (GDC-0575, RG7741)	**NME** (RG7842, GDC-0094)
Patient population	**Solid tumors**	**Solid tumors or lymphoma**	**Solid tumors or lymphoma**	**Solid tumors**
Phase I	**Phase I**	**Phase I**	**Phase I**	**Phase I**
# of patients	N≈60	N=75	N=45	N=78
Design	▪ Dose escalation study	▪ Dose escalation study	▪ Dose escalation study	▪ Stage 1: dose escalation ▪ Stage 2: cohort expansion
Primary endpoint	▪ Safety/PK	▪ Safety/PK	▪ Safety/PK	▪ Safety, MTD, PK
Status	▪ FPI Q2 2010	▪ FPI Q3 2011	▪ FPI Q2 2012	▪ FPI Q2 2013
Collaborator		Array BioPharma		

Immunology development programmes

Genentech
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Molecule	Quilizumab (Anti-M1 prime, RG7449)	Etrolizumab (rhuMAb-β7, (RG7413)
Patient population	**Allergic asthma – inadequately controlled**	**Ulcerative colitis**
Phase/study	**Phase IIb COSTA**	**Phase II EUCALYPTUS**
# of patients	N=560	N=120
Design	SC administration on top of SoC ▪**ARM A**: RG7449 300mg ▪**ARM B**: RG7449 150mg ▪**ARM C**: RG7449 450mg ▪**ARM D**: Placebo	▪ **ARM A**: RhuMAb-β7 (100 mg) plus immunosuppressant ▪ **ARM B**: RhuMAb-β7 (300 mg) plus immunosuppressant ▪ **ARM C:** Placebo plus immunosuppressant
Primary endpoint	▪ Rate of protocol-defined exacerbations from baseline to week 36	▪ Clinical Remission (Mayo Clinic Score) at Week 10
Status	▪ FPI Q2 2012	▪ Primary endpoint met Q4 2012 ▪ Data presented at DDW 2013

SoC=Standard of Care, DDW=Digestive Disease Week

Immunology development programmes

Genentech
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Molecule	Rontalizumab (Anti-INFalpha, RG7415)	anti-IL17 (RG7624)
Patient population	Systemic lupus erythematosus	Autoimmune diseases
Phase/study	Phase II ROSE	Phase Ib
# of patients	N=238	N=21
Design	▪ **ARM A**: Placebo • Part 1 – iv • Part 2 - sc ▪ **ARM B**: Rontalizumab • Part 1 – iv • Part 2 – sc	▪ Randomized, double-blind, placebo-controlled, multiple ascending dose escalation study
Primary endpoint	▪ Proportion of responders at Week 24	▪ Safety and tolerability
Status	▪ Enrolment completed Q3 2010 ▪ Data presented at ACR 2012	▪ Enrolment completed Q2 2012
Collaborator		NovImmune

ACR=American College of Rheumatology

Neuroscience and ophthalmology development programmes

Genentech
A Member of the Roche Group

Molecule	**Crenezumab** (Anti-Aβ, RG7412)		**Lampalizumab** (Anti-Factor D, RG7417)
Patient population	**Alzheimer's Disease**		**Geographic atrophy (GA) secondary to age-related macular degeneration**
Phase/study	**Phase II** **ABBY** Cognition study	**Phase II** **BLAZE** Biomarker study	**Phase Ib/II** **MAHALO**
# of patients	N=360	N=72	N=143

Design	▪ **ARM A**: Crenezumab sc
	▪ **ARM B**: Crenezumab iv
	▪ **ARM C:** Placebo
		▪ **ARM A**: Crenezumab sc
		▪ **ARM B**: Crenezumab iv
		▪ **ARM C:** Placebo
			▪ **Part 1: Open-label**
			  ▪ Multiple dosing
			▪ **Part 2: Randomized**
			  ▪ **ARM A:** Lampalizumab injection
			  ▪ **ARM B:** Sham injection

Primary endpoint	▪ Change in cognition (ADAS-cog) and Clinical Dementia Rating, Sum of Boxes (CDR-SOB) score from baseline to week 73	▪ Change in brain amyloid load from baseline to week 69	▪ Part 1: Safety ▪ Part 2: Growth rate of GA lesions at month 18
Status	▪ FPI Q2 2011 ▪ Enrolment completed Q3 2012	▪ FPI Q3 2011 ▪ Enrolment completed Q3 2012	▪ Part 1 FPI Q4 2012 ▪ Part 2 FPI Q2 2011 ▪ Enrolment completed Q4 2011
Collaborator	AC Immune		

Metabolism and infectious diseases development programmes

Genentech
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Molecule	**Anti-PCSK9** (RG7652)	**NME targeting CMV** (RG7667)		**NME** (RG7745)
Patient population	**Metabolic diseases**	**Infectious diseases**	**Prevention of cytomegalovirus disease in kidney transplant recipients**	**Infectious diseases**
Phase/study	**Phase II EQUATOR**	**Phase I**	**Phase II**	**Phase I**
# of patients	N=224	N=181	N=110	N=21
Design	SC dosing every 4 weeks ▪ Experimental: five different doses of RG7652 ▪ Placebo	• **ARM A:** RG7667 • **ARM B:** Placebo	• **ARM A:** RG7667 • **ARM B:** Placebo	▪ Single ascending dose of RG7745 ▪ Placebo
Primary endpoint	▪ Absolute change from baseline in LDL-c concentration	▪ Safety, PK	▪ Safety, clinical activity	▪ Safety, PK
Status	▪ Expect Phase I data presentation in 2013 ▪ Phase II data readout in 2013 ▪ Program will not be moved forward solely by Roche	▪ FPI Q1 2012 ▪ Recruitment completed Q3 2012	▪ FPI Q4 2012	▪ FSI Q2 2013

FSI=First Subject In

Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

Geographical sales split by divisions and Group*

CHF m	HY 2012	HY 2013	% change CER
Pharmaceuticals Division	**17,409**	**18,162**	**+6**
United States	6,815	7,553	**+10**
Europe	4,514	4,652	**+1**
Japan	1,943	1,672	**+2**
International	4,137	4,285	**+5**
Diagnostics Division	**5,014**	**5,133**	**+3**
United States	1,145	1,139	**-1**
Europe	2,008	2,050	**0**
Japan	284	242	**+1**
International	1,577	1,702	**+9**
Group	**22,423**	**23,295**	**+5**
United States	7,960	8,692	**+8**
Europe	6,522	6,702	**+1**
Japan	2,227	1,914	**+2**
International	5,714	5,987	**+6**

* Geographical sales split shown here does not represent operational organization; CER=Constant Exchange Rates

Pharma Division sales HY 2013 (vs. 2012)

Top 20 products

	Global		US		Europe		Japan		International	
	CHF m	% CER	CHF m	% CER	CHF m	% CER	CHF m	% CER	CHF m	% CER
MabThera/Rituxan	3,401	3	1,657	6	959	2	118	3	667	-3
Avastin	3,093	12	1,290	3	947	16	342	18	514	28
Herceptin	3,082	5	896	9	1,110	0	141	6	935	8
Lucentis	820	9	820	9	-	-	-	-	-	-
Xeloda	771	2	315	-1	163	-3	54	6	239	7
Pegasys	724	-20	201	-35	196	-9	27	-17	300	-13
Tarceva	691	4	325	16	175	-8	45	2	146	-1
Actemra/RoActemra	496	33	150	38	174	30	90	16	82	55
CellCept	465	3	107	36	119	-15	33	11	206	1
Xolair	386	11	386	11	-	-	-	-	-	-
Tamiflu	380	79	213	135	9	17	88	11	70	143
Activase/TNKase	341	19	315	20	-	-	-	-	26	8
Valcyte/Cymevene	333	8	170	9	86	-3	-	-	77	19
Pulmozyme	278	8	179	12	62	1	0	*	37	0
NeoRec./Epogin	269	-21	-	-	113	-28	51	-33	105	-1
Mircera	200	23	-	-	50	8	97	31	53	23
Zelboraf	171	84	67	17	91	158	-	-	13	*
Madopar	158	2	-	-	56	-2	9	5	93	4
Nutropin	144	-7	141	-7	-	-	-	-	3	-12
Rocephin	138	5	0	-63	24	-7	21	-3	93	12

CER=Constant Exchange Rates

* over +500%

Pharma Division sales HY 2013 (vs. 2012)

Recently launched products

	Global		US		Europe		Japan		International	
	CHF m	% CER	CHF m	% CER	CHF m	% CER	CHF m	% CER	CHF m	% CER
Perjeta	108	*	88	*	18	-	-	-	2	-
Kadcyla	83	-	82	-	1	-	-	-	-	-
Erivedge	28	186	28	182	-	-	-	-	-	-

CER=Constant Exchange Rates

* over +500%

Pharma Division CER sales growth[1] in %

Global top 20 products

	Q2/12	Q3/12	Q4/12	Q1/13	Q2/13
MabThera/Rituxan	11	11	7	6	0
Avastin	5	11	8	11	13
Herceptin	14	14	8	11	0
Lucentis	-11	-12	-9	1	18
Xeloda	13	4	5	1	3
Pegasys	29	-4	-5	-15	-24
Tarceva	7	-5	-3	0	9
Actemra/RoActemra	32	27	30	32	33
CellCept	-11	-11	1	4	1
Xolair	12	9	10	12	10
Tamiflu	63	-64	449	84	44
Activase/TNKase	25	30	17	35	3
Valcyte/Cymevene	10	9	9	8	8
Pulmozyme	8	11	4	9	7
NeoRec./Epogin	-28	-20	-25	-22	-20
Mircera	25	-12	2	12	35
Zelboraf	-	498	271	154	46
Madopar	11	2	5	9	-4
Nutropin	-12	-10	-5	-6	-8
Rocephin	0	-8	-5	-6	19

[1] Q2-Q4/12 vs. Q2-Q4/11, Q1-Q2/13 vs. Q1-Q2/12

CER=Constant Exchange Rates

Pharma Division CER sales growth[1] in %

Top 20 products by region

	US				Europe				Japan				International			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
MabThera/Rituxan	9	7	12	-1	4	8	2	3	5	5	0	6	29	4	-2	-3
Avastin	4	1	3	3	8	13	15	17	19	20	18	18	34	3	26	29
Herceptin	12	11	17	1	4	4	1	-2	48	12	6	7	26	10	19	-1
Lucentis	-12	-9	1	18	-	-	-	-	-	-	-	-	-	-	-	-
Xeloda	2	6	0	-3	-5	-1	-4	-2	9	12	8	5	13	4	3	13
Pegasys	31	-17	-30	-40	5	-2	-10	-8	-10	-6	-16	-18	-26	2	-4	-21
Tarceva	6	5	14	18	-21	-11	-12	-4	17	6	8	-2	-9	-11	-12	12
Actemra/RoActemra	50	58	45	33	34	35	29	31	-7	-7	8	23	47	63	53	57
CellCept	-22	0	60	17	-11	-13	-13	-18	11	14	8	13	-9	10	-4	6
Xolair	9	10	12	10	-	-	-	-	-	-	-	-	-	-	-	-
Tamiflu	-	-	171	-41	-85	-	54	-58	-94	57	6	121	-32	164	132	161
Activase/TNKase	33	17	36	3	-	-	-	-	-	-	-	-	3	20	27	-5
Valcyte/Cymevene	14	18	4	14	1	-8	-1	-5	-	-	-	-	7	13	27	9
Pulmozyme	6	8	17	8	-4	6	-3	4	-	-	-	308	60	-5	-6	5
NeoRec./Epogin	-	-	-	-	-14	-23	-25	-31	-43	-46	-37	-29	-2	0	-3	2
Mircera	-	-	-	-	-71	-57	-32	142	65	83	46	21	16	6	28	19
Zelboraf	128	44	19	15	-	*	*	51	-	-	-	-	-	-	*	*
Madopar	-	-	-	-	-8	-5	-3	-2	-5	11	8	3	10	13	17	-6
Nutropin	-10	-5	-6	-8	-	-	-	-	-	-	-	-	-13	-17	-13	-12
Rocephin	-74	-15	-62	-65	-34	-13	-14	5	-14	-11	-8	2	1	-1	-3	29

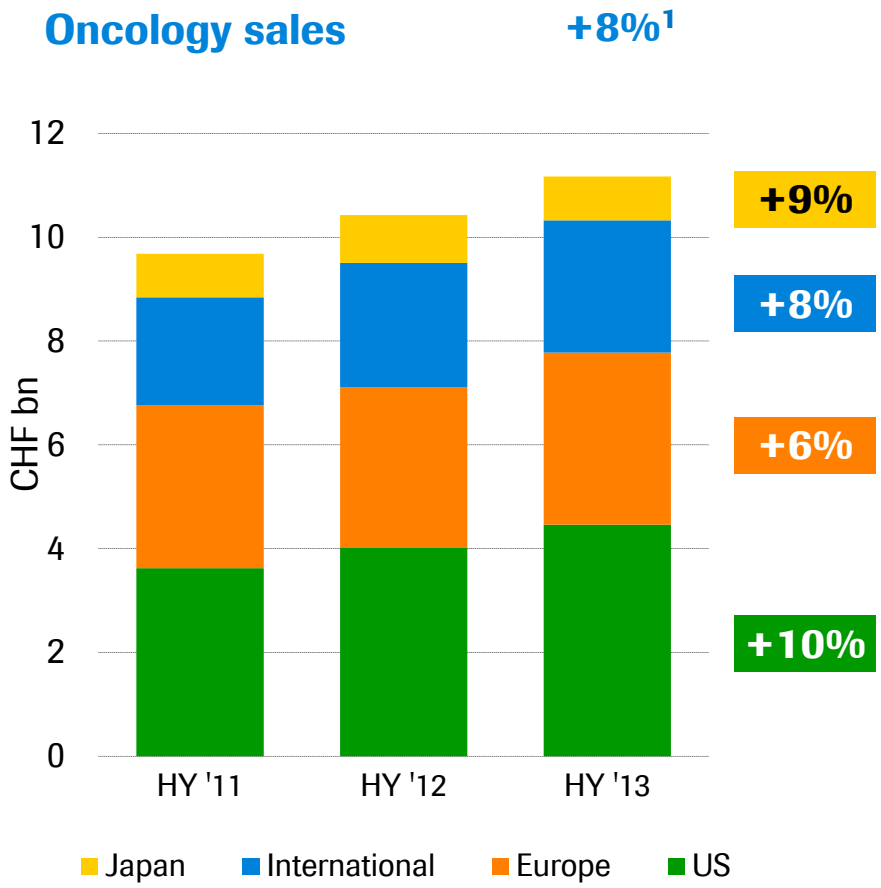
[1] Q3 2012 - Q4 2012 vs. 2011, Q1 2013 – Q2 2013 vs. 2012 CER=Constant Exchange Rates * over +500%

CER sales growth (%)
Quarterly development

	2012 vs. 2011				2013 vs. 2012	
	Q1	Q2	Q3	Q4	Q1	Q2
Pharmaceuticals Division	**2**	**6**	**4**	**7**	**7**	**4**
United States	6	6	5	13	13	7
Europe	-3	-1	-2	0	1	2
Japan	1	0	1	5	2	2
International	3	16	12	6	8	2
Diagnostics Division	**4**	**6**	**1**	**4**	**1**	**4**
Roche Group	**2**	**6**	**4**	**6**	**6**	**4**

CER=Constant Exchange Rates

HY 2013: Oncology franchise



US

- Sales growth driven by Rituxan, Perjeta and Herceptin

Europe

- Major drivers Avastin and Zelboraf

International

- Strong growth for Avastin and Herceptin

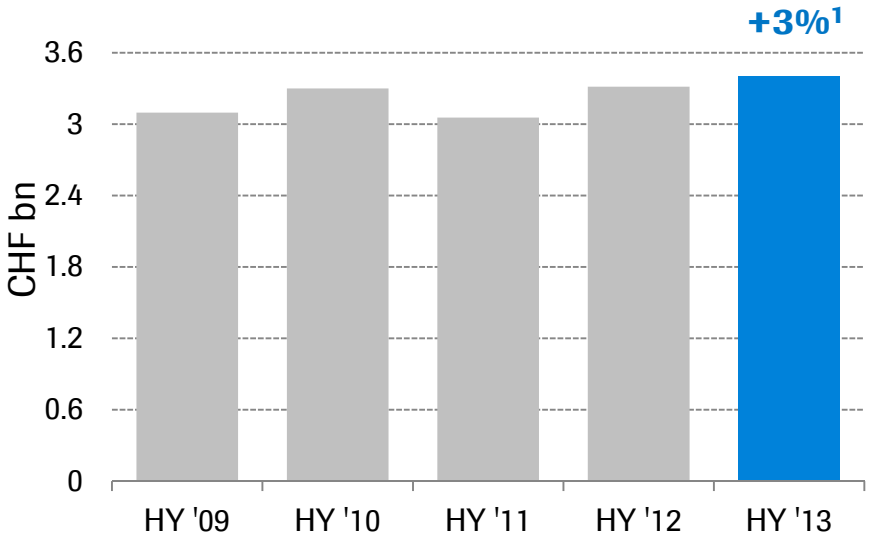
Japan

- Growth driven largely by Avastin

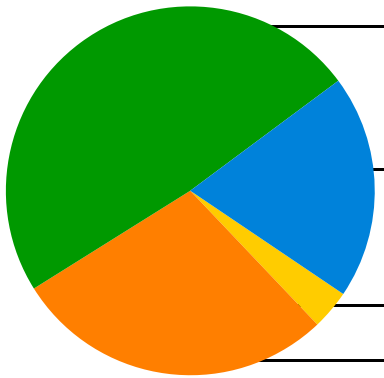
[1] CER=Constant Exchange Rates; Oncology sales CHF 11.2 bn

MabThera/Rituxan

Global sales



Regional sales



CER growth

US +6%

International -3%

Japan +3%

Europe +2%

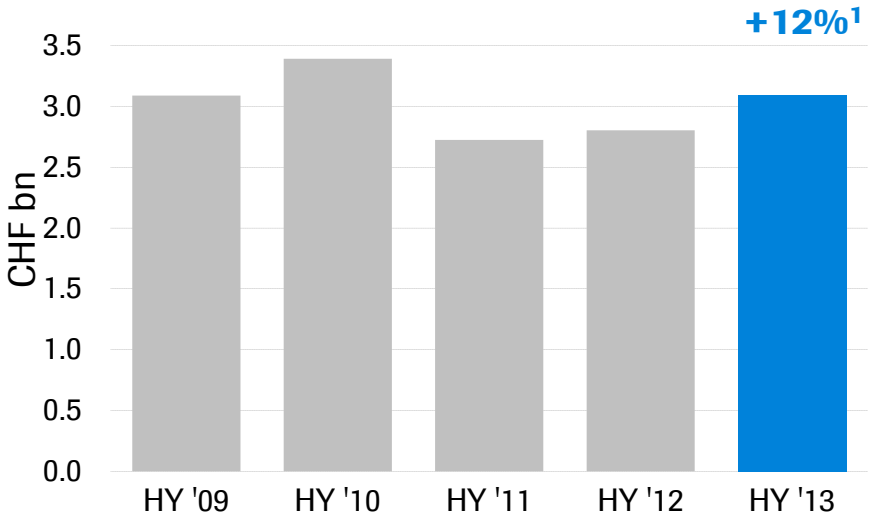
HY 2013 sales of CHF 3.401 bn

- US/Europe: Growth driven primarily by population growth and increased patient share in FL 1L maintenance
- Developing market growth due largely to increased share and duration of treatment in DLBCL

[1] CER=Constant Exchange Rates

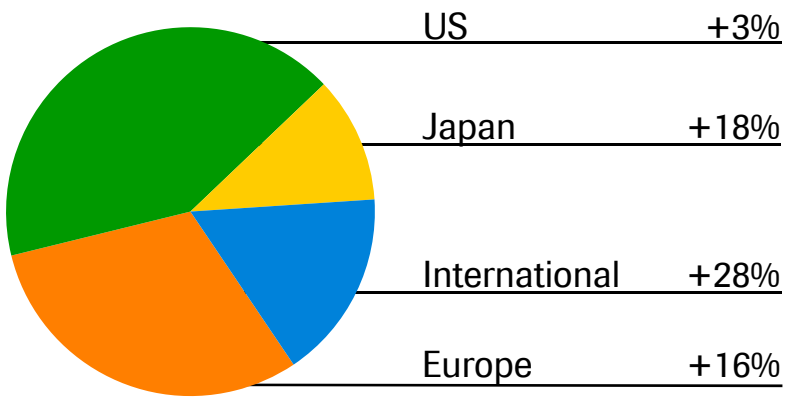
Avastin

Global sales



Regional sales

CER growth



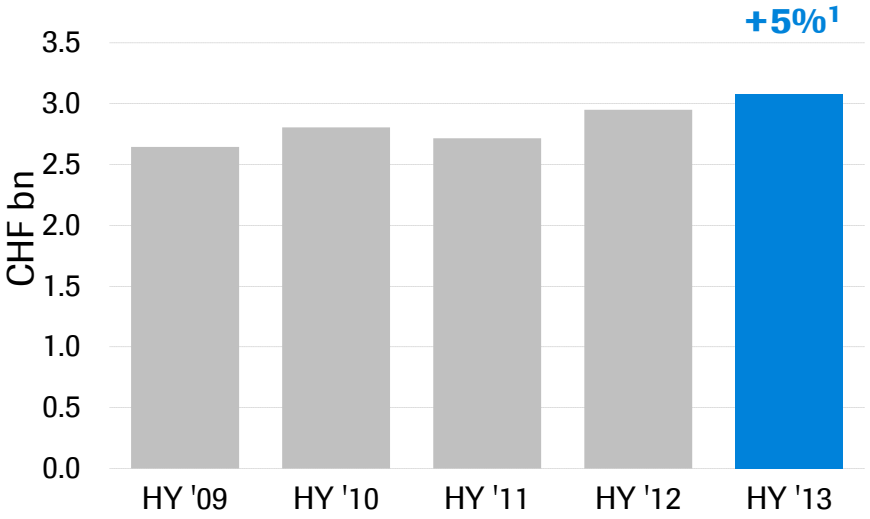
HY 2013 sales of CHF 3.093 bn

- Europe: strong growth driven by further uptake in ovarian and colorectal cancer (Treatment through multiple lines)
- US: significant increase in mCRC use associated with TML awareness
- Japan: steady growth in NSCLC

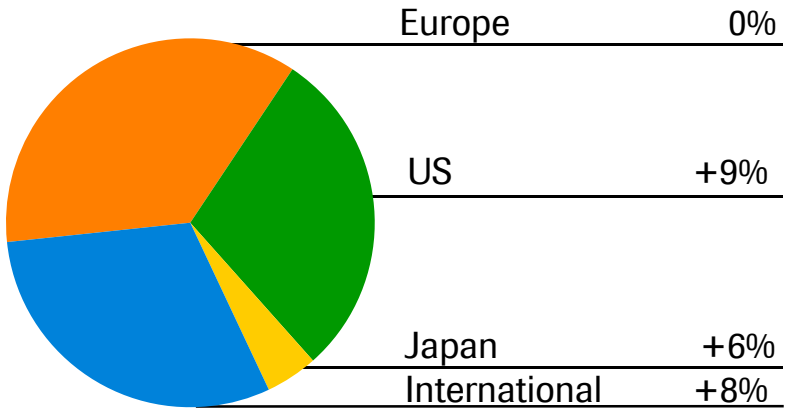
[1] CER=Constant Exchange Rates

Herceptin

Global sales



Regional sales CER growth



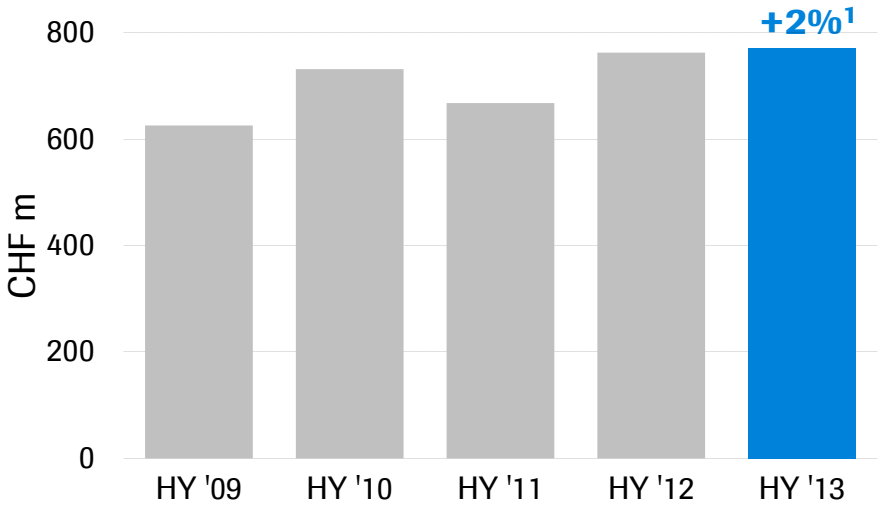
HY 2013 sales of CHF 3.082 bn

- Growth driven by International region and US
- Emerging markets: driven by access in public markets in key countries, patient access program in China and longer duration of use in early breast cancer

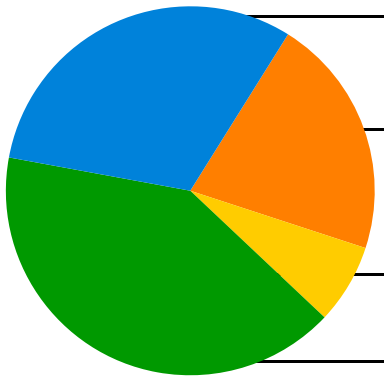
[1] CER=Constant Exchange Rates

Xeloda

Global sales



Regional sales



CER growth

International	+7%
Europe	-3%
Japan	+6%
US	-1%

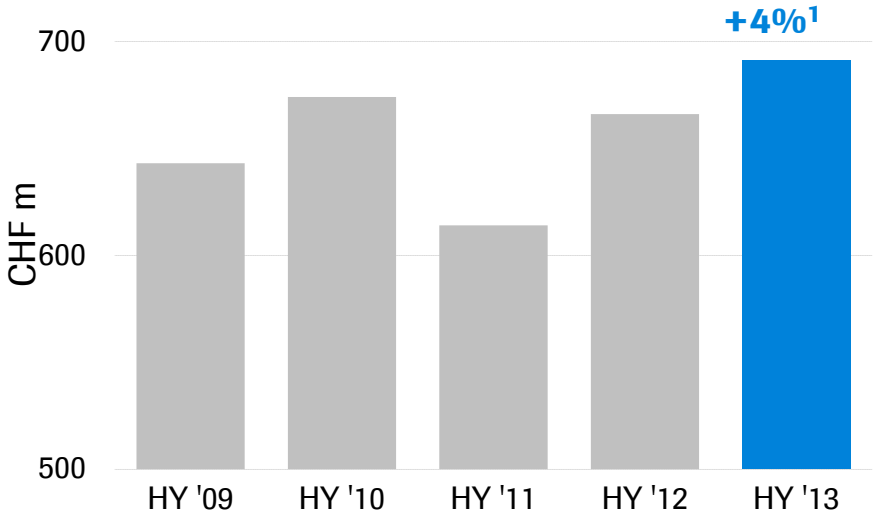
HY 2013 sales of CHF 0.771 bn

- US: supply of IV 5FU normalised. Brand approaching end of lifecycle
- Sales growth in the International region driven by China and Latin America

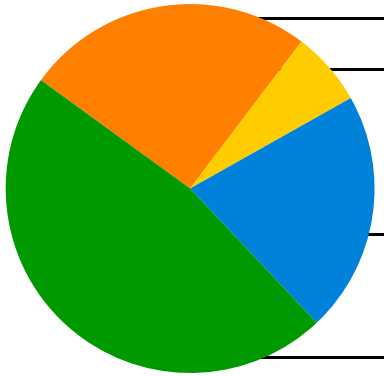
[1] CER=Constant Exchange Rates

Tarceva

Global sales



Regional sales



CER growth

Europe	-8%
Japan	+2%
International	-1%
US	+16%

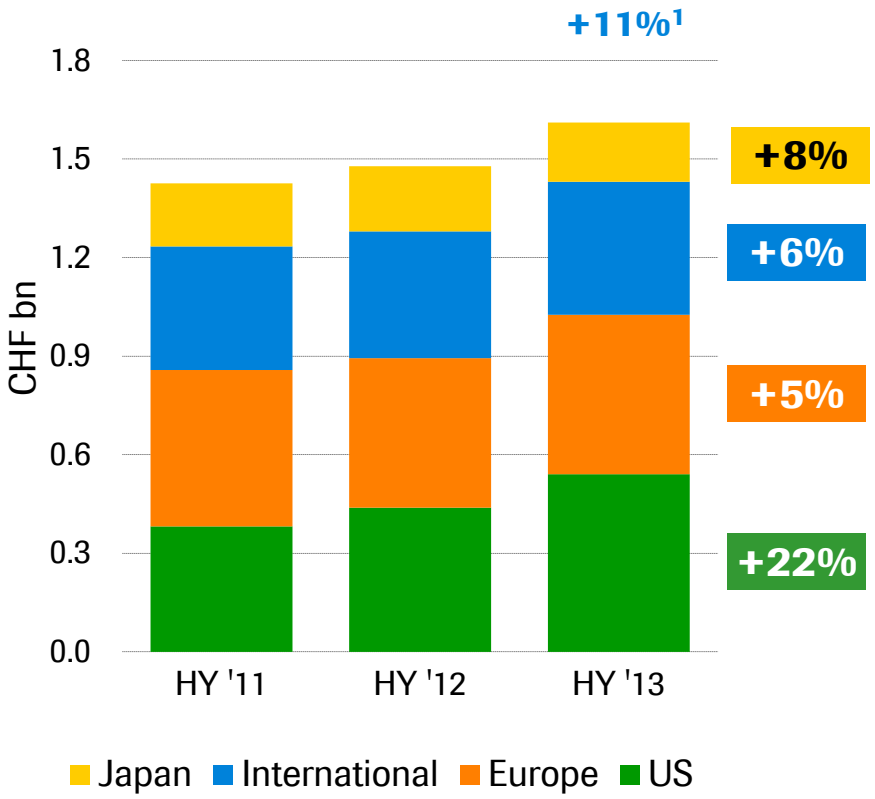
HY 2013 sales of CHF 0.691 bn

- US: driven by increased EGFR testing rates, 1L treatment rates for Mut+ve patients and increase in 1L maintenance use for squamous patients
- EU: Pricing pressure and competitive challenges
- Japan: sales growth driven by uptake in 2L NSCLC

[1] CER=Constant Exchange Rates

Inflammation/Autoimmune/Transplantation

IAT sales



HY 2013 IAT sales: CHF 1.611 bn

- Strong growth of Actemra and MabThera/Rituxan, CellCept stabilising

Actemra/RoActemra

Sales: CHF 496 m (+33%)

- Growth driven by monotherapy use; US biggest growth contributor

CellCept

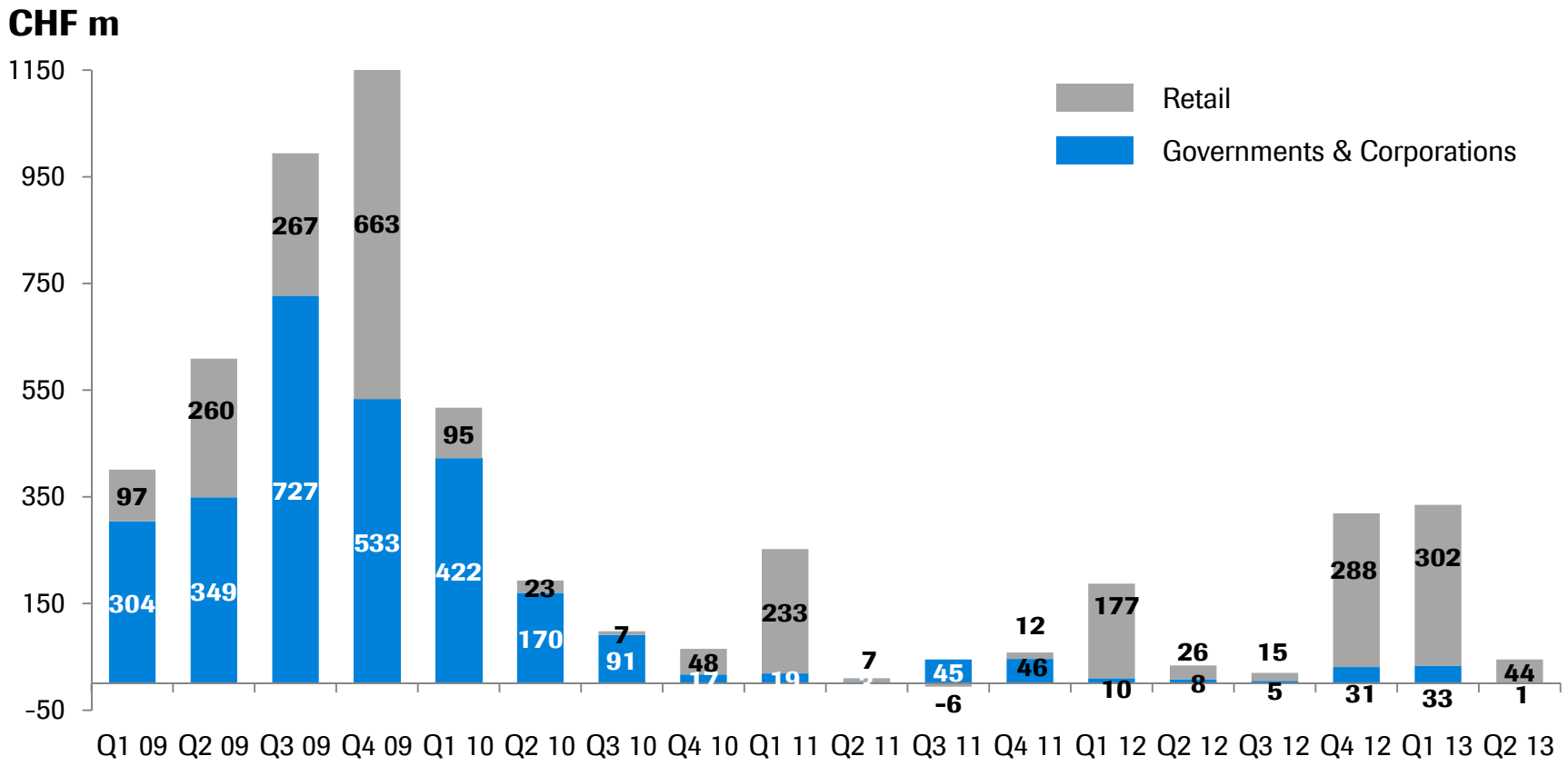
Sales: CHF 465 m (+3%)

- Patent expiry key EU countries end 2010

[1] CER=Constant Exchange Rates

Tamiflu quarterly sales 2009 – 2013

Retail and Governments/Corporations



Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

Roche Pharma research and early development

Genentech research and early development

Roche Group HY 2013 results

Diagnostics

Foreign exchange rate information

HY 2013: Diagnostics Division CER growth

By Region and Business Area (vs. 2012)

	Global		North America		EMEA[1]		RoW	
	CHFm	% CER growth	CHFm	% CER growth	CHFm	% CER growth	CHFm	% CER growth
Professional Diagnostics	2,809	6	565	3	1,286	2	958	13
Diabetes Care	1,205	-5	238	-14	735	-1	232	-5
Molecular Diagnostics	797	1	277	4	317	-1	203	2
Tissue Diagnostics	322	6	195	0	85	13	42	22
Diagnostics Division	**5,133**	**3**	**1,275**	**-1**	**2,423**	**1**	**1,435**	**8**

CER=Constant Exchange Rates

[1] Europe, Middle East and Africa

Diagnostics Division quarterly sales and CER growth[1]

	Q1 12		Q2 12		Q3 12		Q4 12		Q1 13		Q2 13	
	CHFm	% CER	CHFm	% CER	CHFm	% CER	CHFm	% CER	CHFm	% CER	CHFm	% CER
Professional Diagnostics	1,291	8	1,362	8	1,357	8	1,433	7	1,337	4	1,472	8
Diabetes Care	564	-7	696	3	577	-12	729	-1	539	-5	666	-4
Molecular Diagnostics	401	3	395	1	395	-2	436	2	386	-3	411	6
Tissue Diagnostics	147	18	158	16	153	10	173	7	157	7	165	4
Dia Division	**2,403**	**4**	**2,611**	**6**	**2,482**	**1**	**2,771**	**4**	**2,419**	**1**	**2,714**	**4**

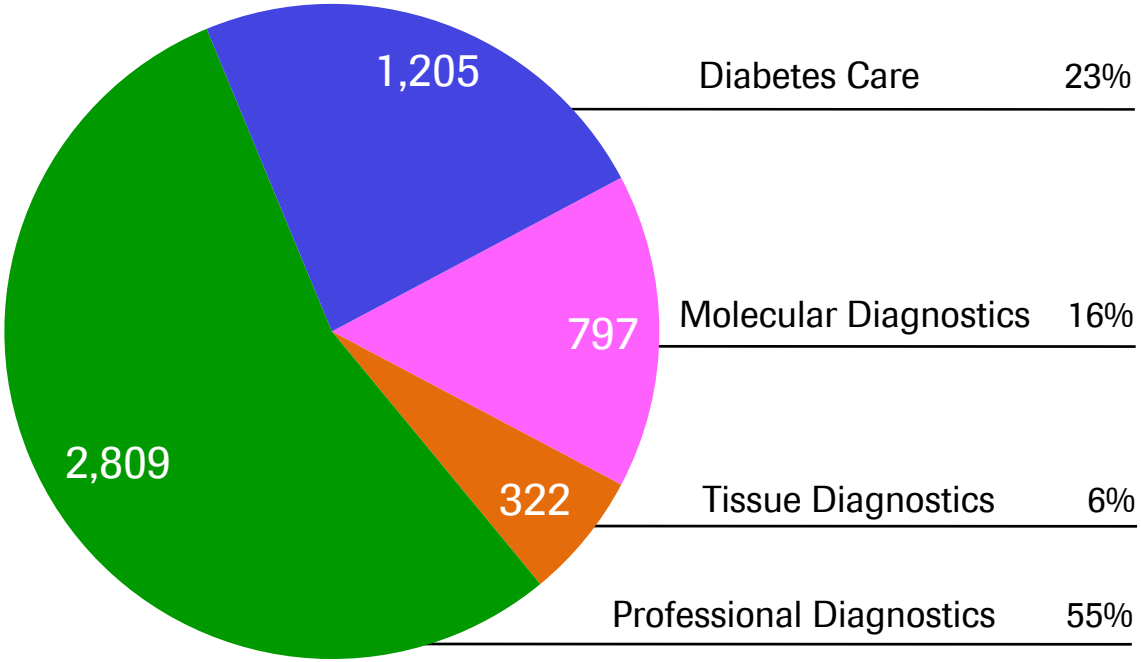
[1] versus same period of prior year

CER=Constant Exchange Rates

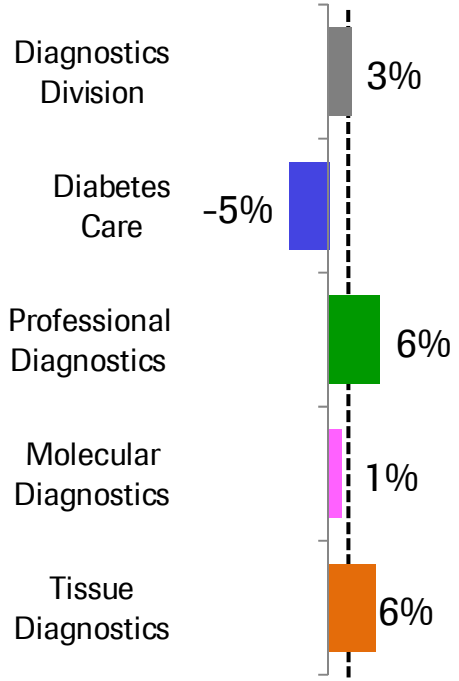
HY 2013: Diagnostics Division sales

Growth driven by Professional Diagnostics

CHF 5,133 m



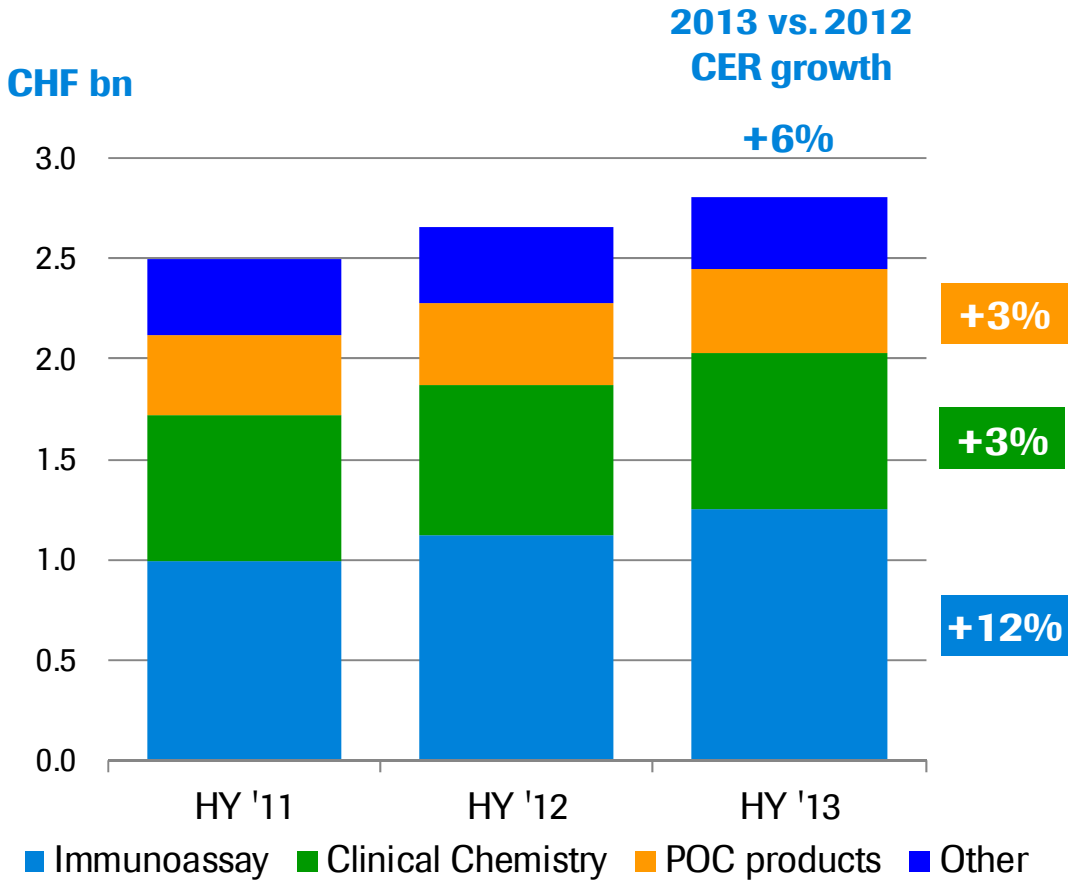
CER sales growth



CER=Constant Exchange Rates

Professional Diagnostics

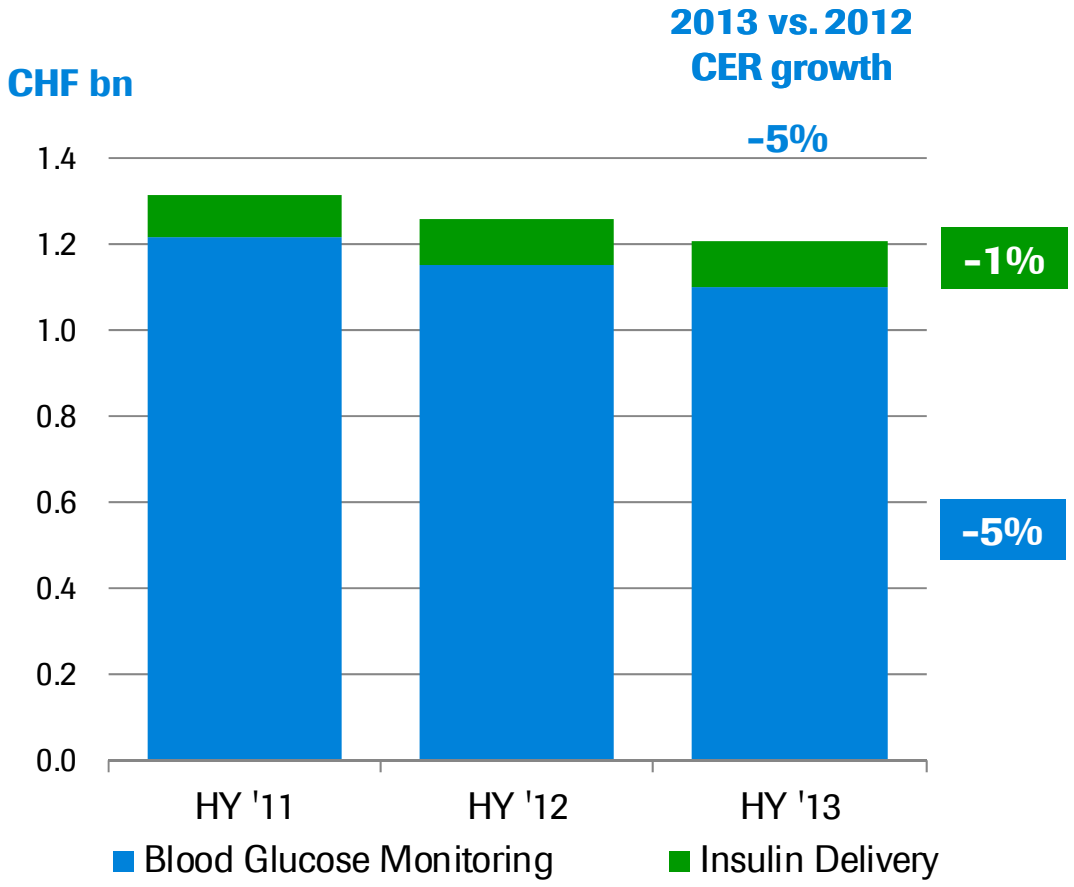
Continued strong growth



CER=Constant Exchange Rates

Diabetes Care

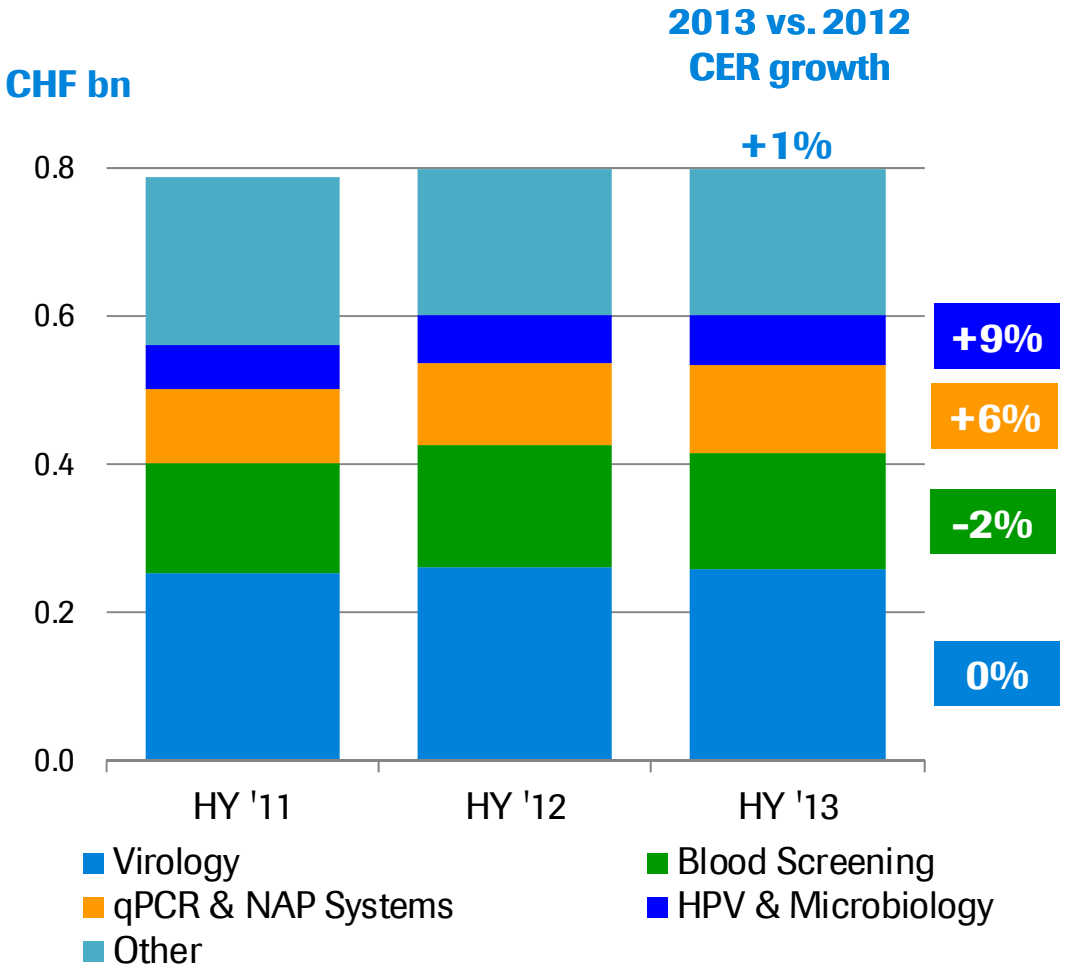
Continued challenging market environment



CER=Constant Exchange Rates

Molecular Diagnostics

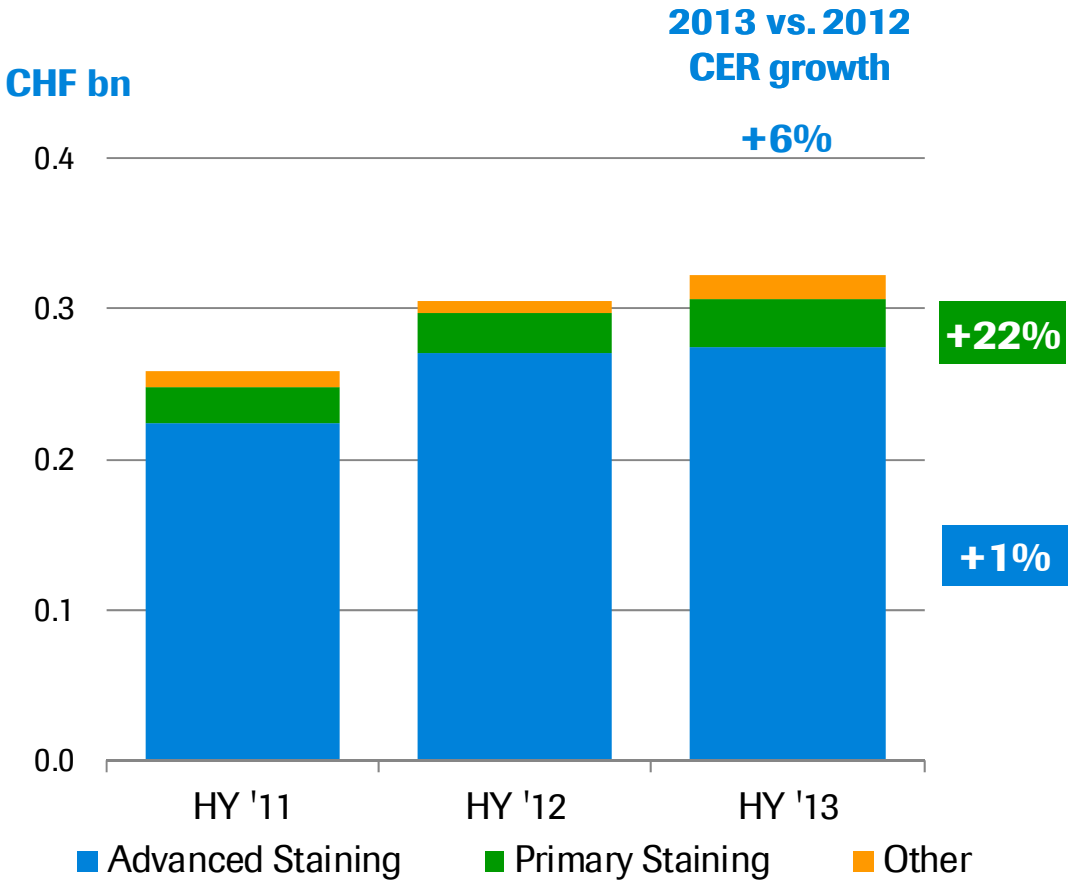
Back to growth in Q2 2013



CER=Constant Exchange Rates

Tissue Diagnostics

Strong growth in EMEA[1] and emerging markets



CER=Constant Exchange Rates

[1] Europe, Middle East and Africa

2013: Key planned product launches
Professional Diagnostics

Product	Description	Region
cobas 8100 pre-analytical series	High throughput total lab automation system designed for up to 1100 samples per hour and connectivity to SWA, Coagulation, Hematology and Urinalysis	EU
Elecsys Calcitonin immunoassay	Aids in the diagnosis and monitoring of medullary thyroid cancer	EU ✓
Elecsys proGRP immunoassay	Aids in the diagnosis of small cell lung cancer	EU ✓
Elecsys Cyclosporin & Tacrolimus immunoassays	Monitoring of immunosuppressive drug therapy in transplant patients	EU ✓

Planned launches may be delayed or not occur as a result of adverse regulatory decisions or other factors

2013: Key planned product launches

Diabetes Care

Product	Description	Region
Accu-Chek Active LCM	Next-generation blood glucose monitoring system maltose independent strips	EU ✓
Accu-Chek Insight	Next generation insulin delivery system combining an insulin pump and a blood glucose meter that functions as a pump remote control	EU

Planned launches may be delayed or not occur as a result of adverse regulatory decisions or other factors

2013: Key planned product launches
Molecular Diagnostics

Product	Description	Region
cobas EGFR test	Companion diagnostic to Tyrosine Kinase Inhibitors / Tarceva for the detection of EGFR mutation in non-small cell lung cancer	US ✓
MPX 2.0	Next generation multiplex test for blood screening for HIV, HCV and HBV	US
CAP/CTM HCV 2.0	Next generation HCV viral load test	US ✓
Seq Cap EZ*	Reagent sets for targeted next generation sequencing	WW ✓
GS FLX long amplicons*	Software for long-read targeted sequencing for DNA variant detection	WW ✓

* From Sequencing Solutions Unit

Planned launches may be delayed or not occur as a result of adverse regulatory decisions or other factors

2013: Key planned product launches

Tissue Diagnostics

Product	Description	Region
ER test	Estrogen receptor antibody (IHC) assay to support the diagnosis of breast cancer	US ✓
CINtec PLUS Cytology	Immunocytochemistry assay used to screen women for cervical pre-cancer	EU

Planned launches may be delayed or not occur as a result of adverse regulatory decisions or other factors

Roche Group development pipeline

Marketed products development programmes

Roche Pharma global development programmes

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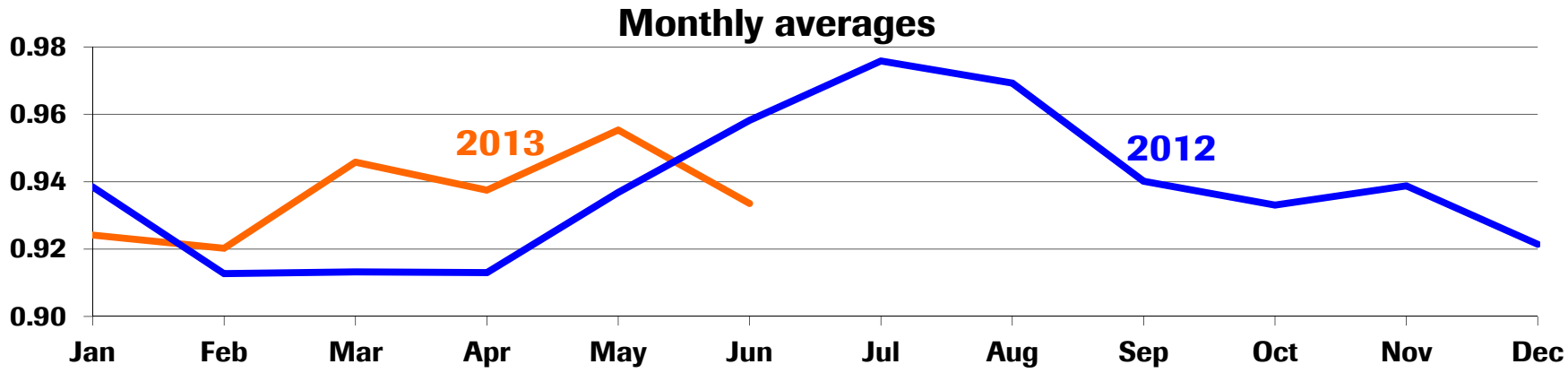
Genentech research and early development

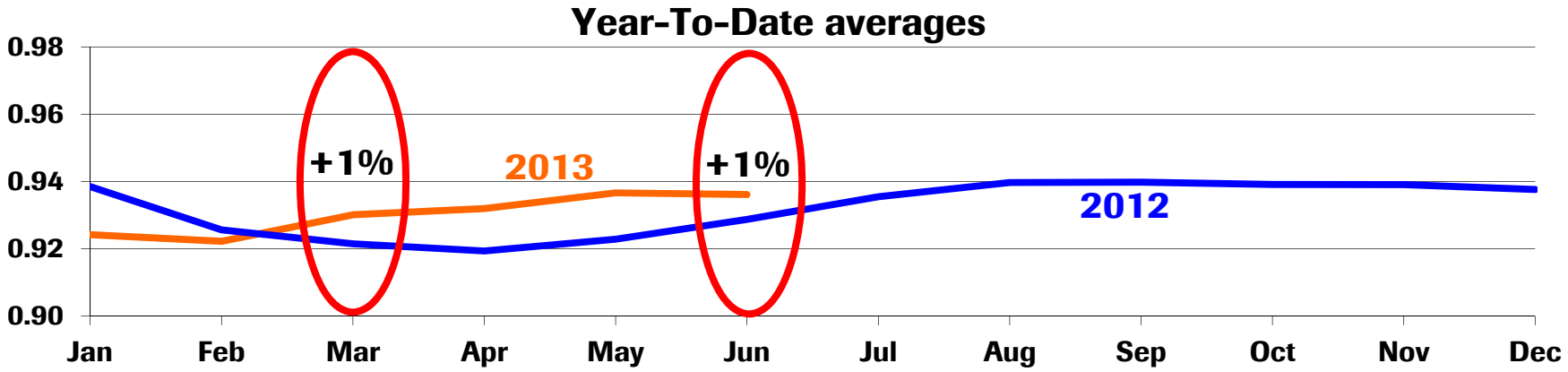
Roche Group HY 2013 results

Diagnostics

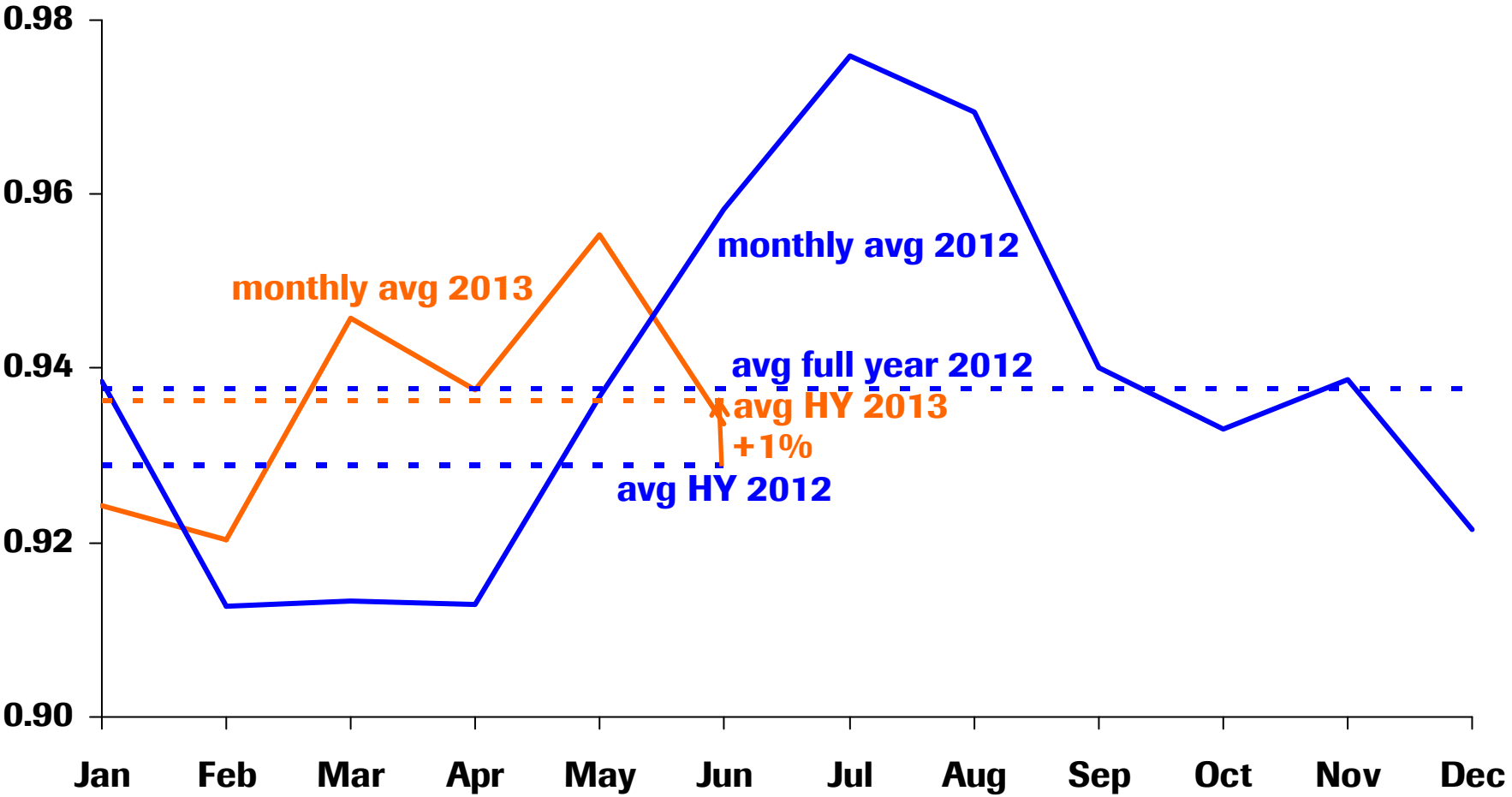
Foreign exchange rate information

CHF / USD

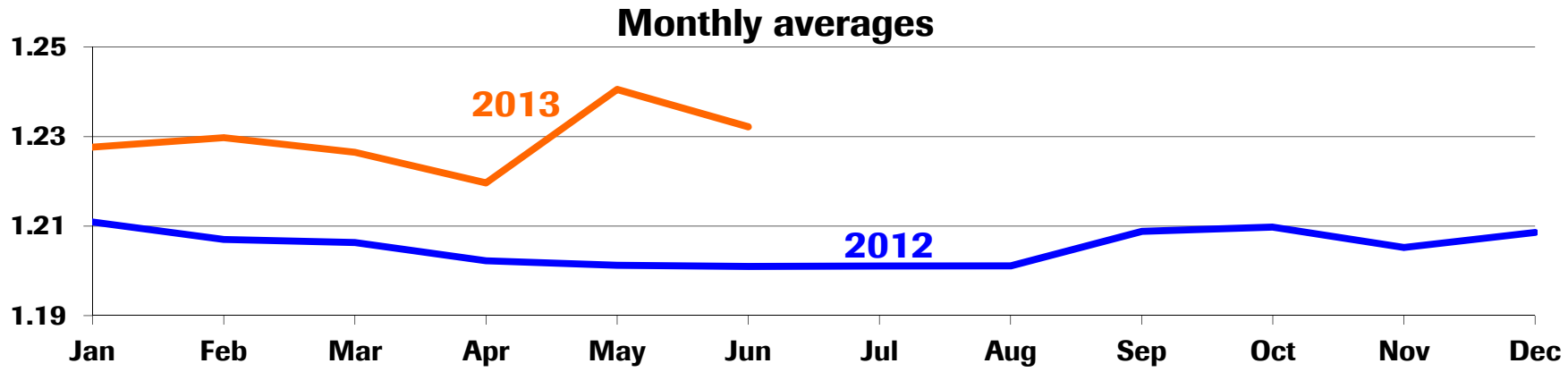

Monthly averages
0.98
0.96
0.94
0.92
0.90
2013
2012
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

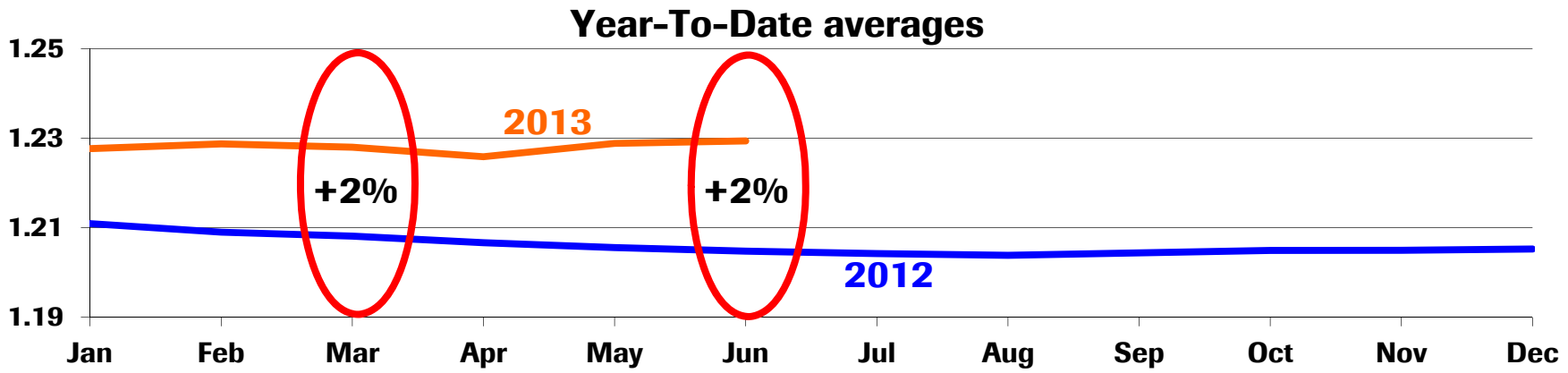

Year-To-Date averages
0.98
0.96
0.94
0.92
0.90
+1%
2013
+1%
2012
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

CHF / USD

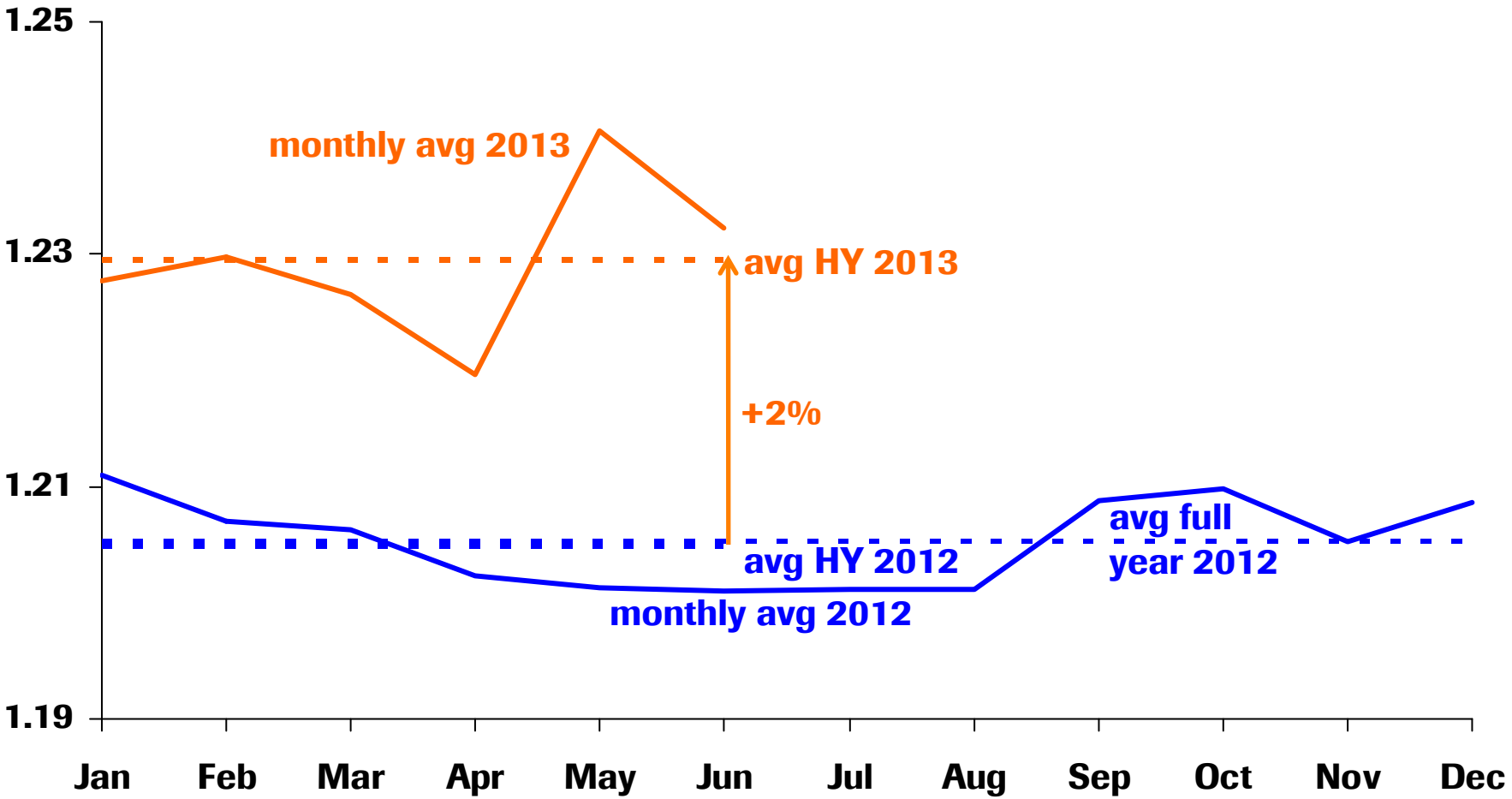

0.98
0.96
0.94
0.92
0.90
monthly avg 2013
monthly avg 2012
avg full year 2012
avg HY 2013
+1%
avg HY 2012
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

CHF / EUR


Monthly averages
1.25
1.23
1.21
1.19
2013
2012
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

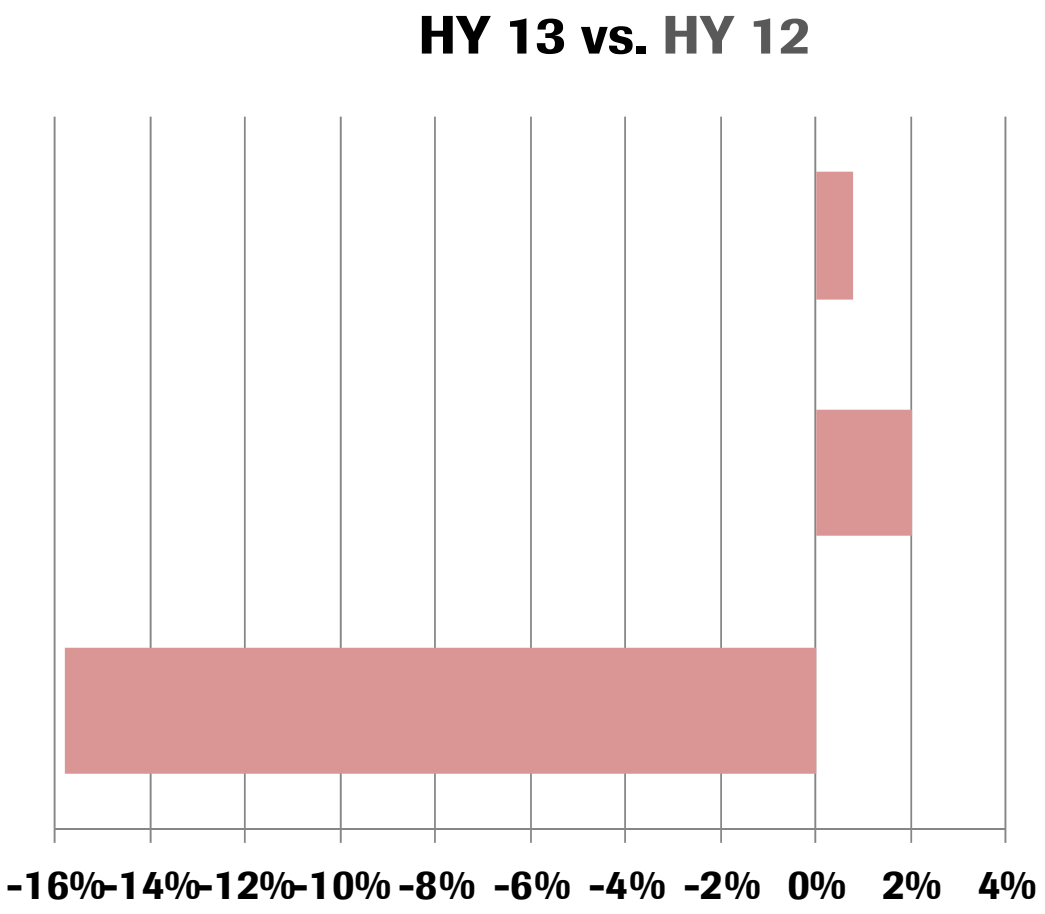

Year-To-Date averages
1.25
1.23
1.21
1.19
2013
+2%
+2%
2012
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

CHF / EUR


1.25
1.23
1.21
1.19
monthly avg 2013
avg HY 2013
+2%
avg HY 2012
monthly avg 2012
avg full
year 2012
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

Average exchange rates

	HY 13	HY 12
USD	0.94	0.93
EUR	1.23	1.20
JPY	0.98	1.17

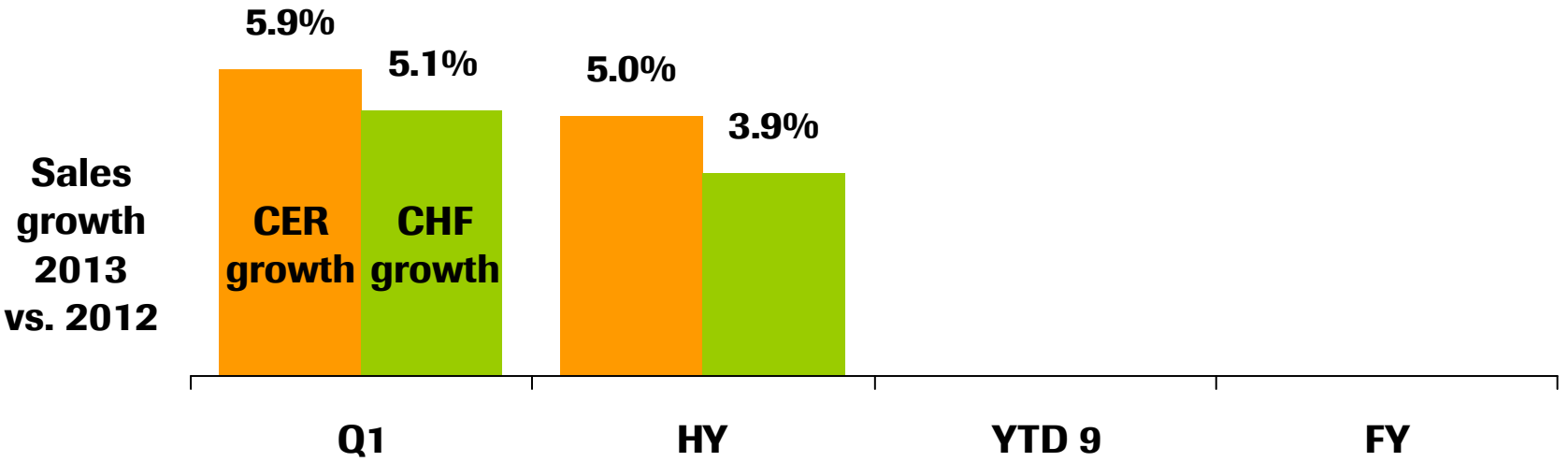


Exchange rate impact on sales growth

In H1 negative impact from JPY partially offset by positive impact from USD and EUR

Development of average exchange rates versus prior year period

CHF / EUR	+1.6 %	+2.0 %
CHF / USD	+0.9 %	+0.8 %
CHF / JPY	-13.3 %	-15.8 %
Difference in CHF / CER growth	-0.8 %p	-1.1 %p



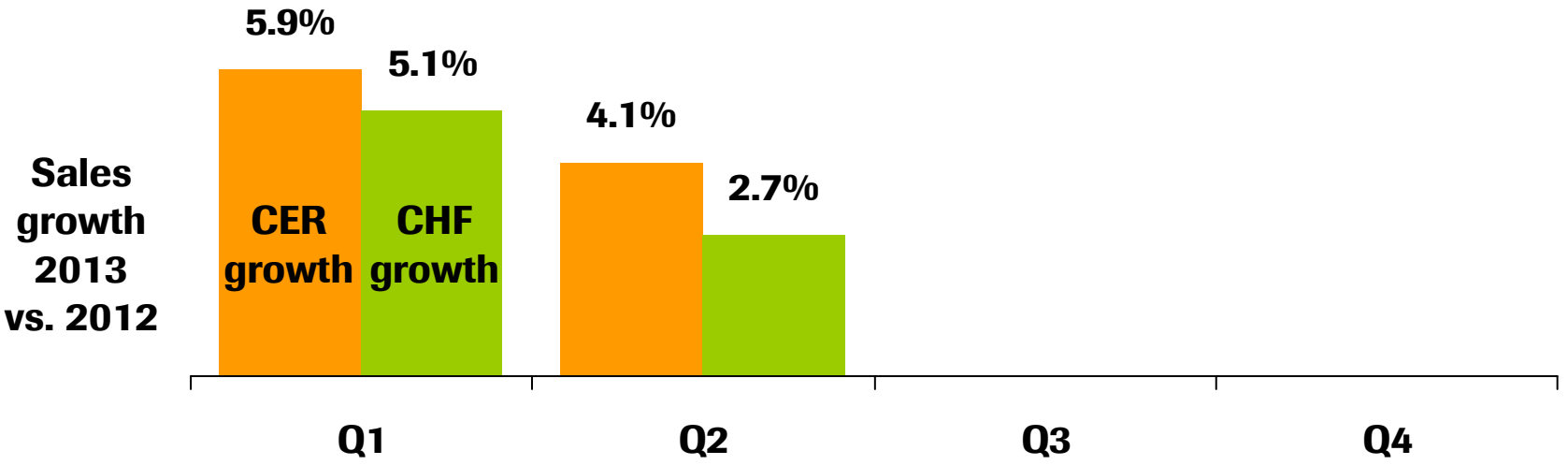
CER=Constant Exchange Rates

Exchange rate impact on sales growth

In H1 negative impact from JPY partially offset by positive impact from USD and EUR

Development of average exchange rates versus prior year period

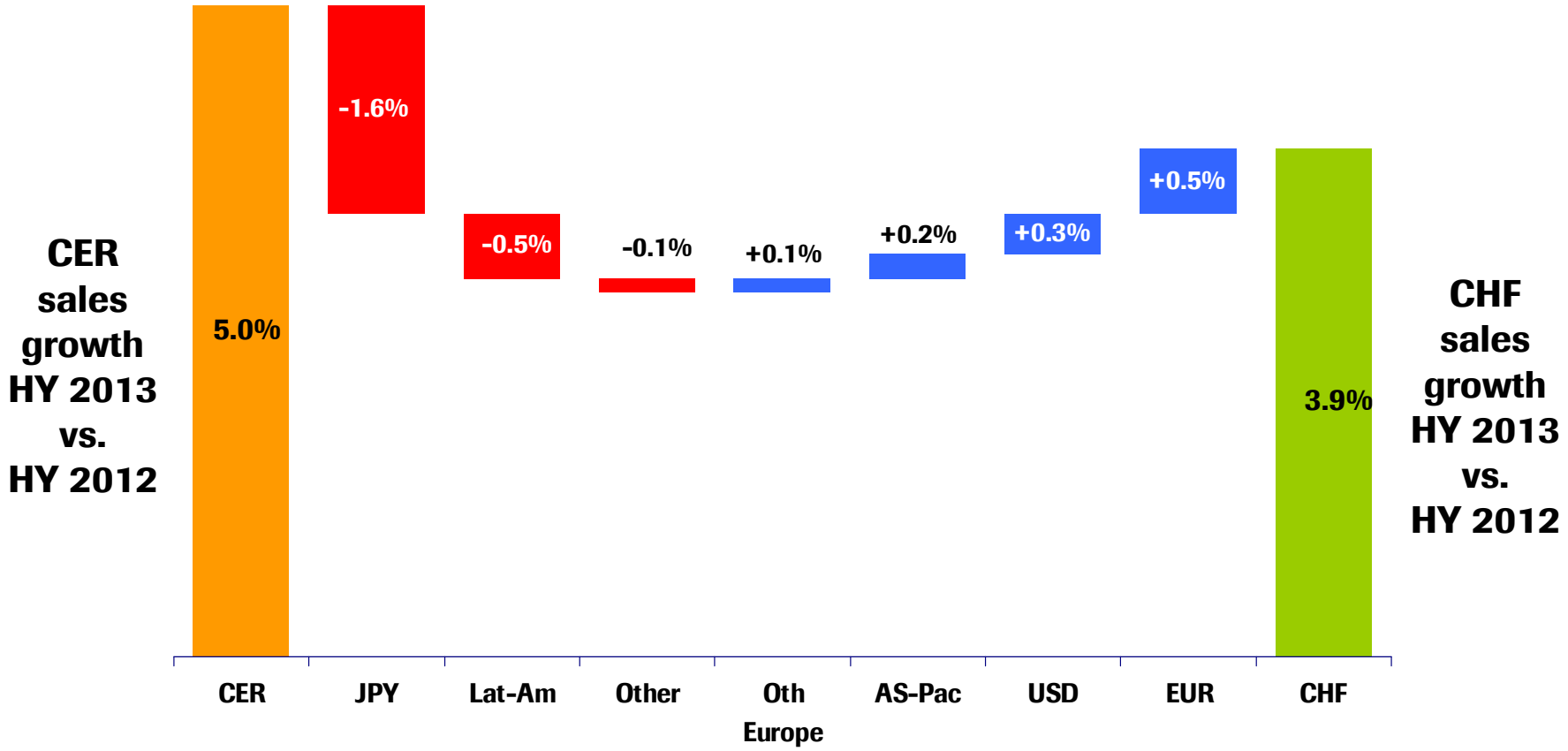
CHF / EUR	+1.6 %	+2.4 %
CHF / USD	+0.9 %	+0.7 %
CHF / JPY	-13.3 %	-18.2 %
Difference in CHF / CER growth	-0.8 %p	-1.4 %p



CER=Constant Exchange Rates

Exchange rate impact on sales growth

Negative impact from JPY partially offset by positive impact from EUR and USD

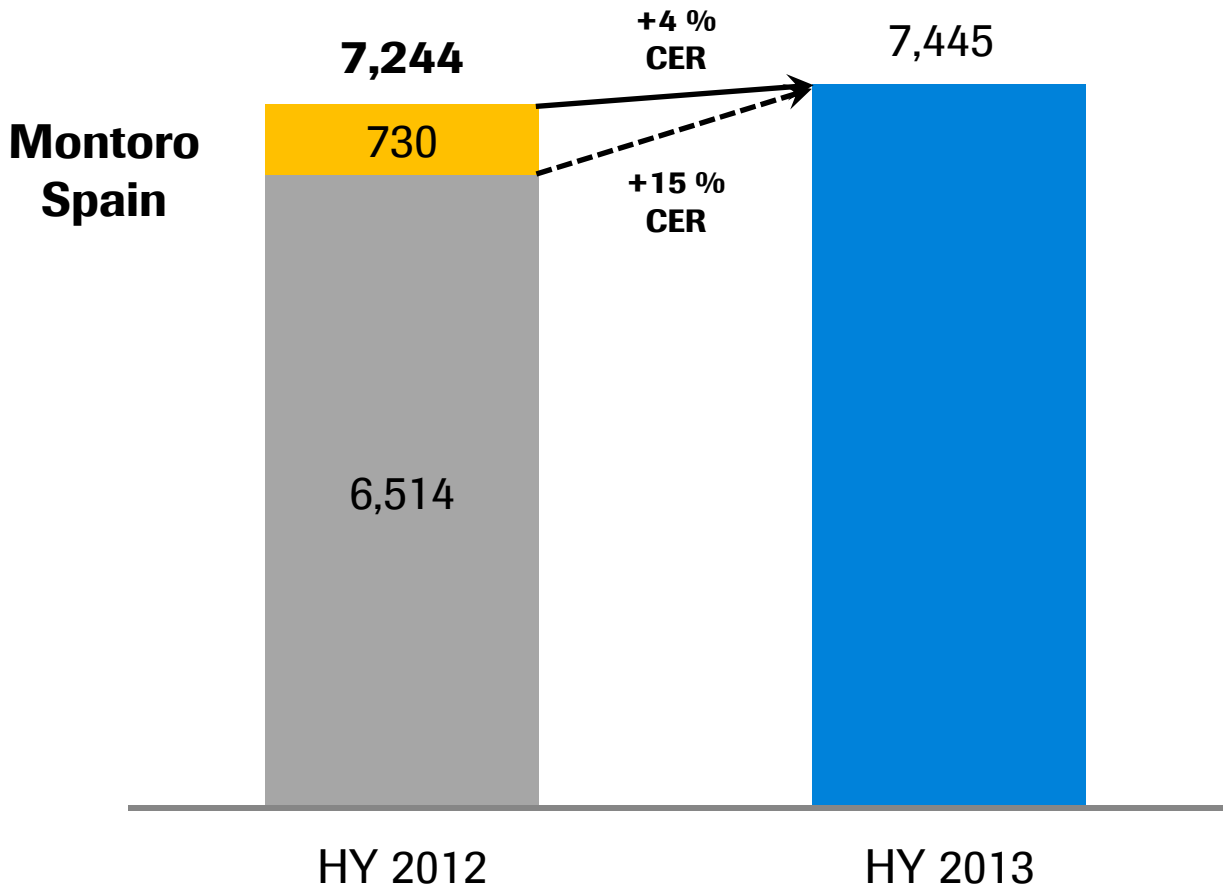


CER=Constant Exchange Rates

HY 2013: Operating free cash flow

Solid 4% growth, in spite of Montoro payments received in HY 2012

CHF m



CER=Constant Exchange Rates

Doing now what patients need next