Coherus (CHRS)

Rating	**OUTPERFORM* [V]**
Price (04 Dec 14, US$)	14.18
Target price (US$)	22.00[1]
52-week price range	15.26 - 12.61
Market cap. (US$ m)	461.69
Enterprise value (US$ m)	330.54

**Stock ratings are relative to the coverage universe in each analyst's or each team's respective sector.*
[1]Target price is for 12 months.
[V] = Stock considered volatile (see Disclosure Appendix).

INITIATION

The Leading Biosimilar Pure Play Company

- **Initiating coverage with an Outperform rating and $22 TP**. Coherus is the leading "biosimilar pure play" publically traded company, having recently IPO'ed in early November at $13.50/share. The key attributes for the company are an extremely seasoned management team and concomitant regulatory and analytical experience/knowledge. The company's lead assets are both anti-TNFs which are in/about to enter PIII trials: CHS-1420 (Humira Biosimilar) – BLA expected in 2015 for which Coherus retains WW rights and CHS-0214 (Enbrel biosimilar) with a MAA expected in 2016 and is partnered with Baxter and Daiichi-Sankyo for EU and Japan, respectively.
- **The near-term $70B Biosimilars land-grab and more to come.** Biologics have become a very significant part of the global drugs market. This market grew from just $20B/10% of the global drugs market in 2000 to $276B/32% by 2020E. Biologics' dominance of the "Top 10" drugs is even greater with biologics representing *ca*70% of the value by 2015E. By 2018, $69B of biologics will have undergone patent expiries in major markets ($35B in US and $34B in ROW). By far, the anti-TNFs represent the biggest near-term biosimilar opportunity as they make up the largest single component of the global biologics market ($30B or 35% of 2015E total biologics sales).
- **Investment thesis and valuation:** We acknowledge that the "trail blazing" nature of biosimilar pioneers, such as Coherus, and the inherent regulatory uncertainty/potential patent related litigation surrounding biosimilar approvals, influences near term investment risk. Our DCF-derived TP of $22 assumes: (1) CHS-1420 (Humira biosimilar) is launched in the US and EU in 2017/18. We model worldwide CH-1420 peak sales of ~$820M in 2024. (2) CHS-0214 (Enbrel biosimilar) is launched ex-US in 2017. We assume a 12% royalty rate and model peak ex-US royalties of $45M from Baxter and Daiichi Sankyo. We risk weight our cash flows by 50%. We do not assign a terminal value, and we have not included Coherus' other pipeline in our DCF.

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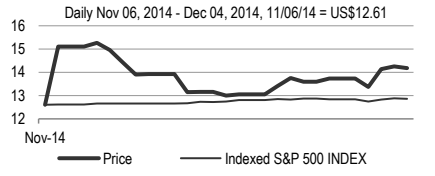
Share price performance



On 12/04/14 the S&P 500 INDEX closed at 2071.94

Quarterly EPS	Q1	Q2	Q3	Q4
2013A	—	—	—	—
2014E	—	—	-0.87	-0.82
2015E	—	—	—	—

Financial and valuation metrics

Year	12/13A	12/14E	12/15E	12/16E
EPS (CS adj.) (US$)	-9.66	-4.37	-3.72	-0.52
Prev. EPS (US$)	—	—	—	—
P/E (x)	-1.5	-3.2	-3.8	-27.5
P/E rel. (%)	-7.8	-18.5	-23.8	-192.5
Revenue (US$ m)	2.8	37.1	16.2	118.0
EBITDA (US$ m)	-35.6	-51.2	-101.8	-7.6
OCFPS (US$)	2.78	-2.39	-2.55	-0.15
P/OCF (x)	—	-5.9	-5.6	-92.3
EV/EBITDA (current)	-11.9	-6.5	-4.1	-42.0
Net debt (US$ m)	-40	-131	-47	-142
ROIC (%)	43.90	56.12	103.01	9.26

Number of shares (m)	32.56	IC (current, US$ m)	-81.99
BV/share (Next Qtr., US$)	—	EV/IC (x)	—
Net debt (Next Qtr., US$ m)	—	Dividend (current, US$)	—
Net debt/tot eq (Next Qtr., %)	—	Dividend yield (%)	—

Source: Company data, Credit Suisse estimates.

Coherus Biosciences CHRS

Price (04 Dec 14): **US$14.18**, Rating**: OUTPERFORM [V]**, Target Price: **US$22.00**

Income statement (US$ m)	12/13A	12/14E	12/15E	12/16E
Revenue (US$ m)	2.8	37.1	16.2	118.0
EBITDA	**(36)**	**(51)**	**(102)**	**(8)**
Depr. & amort.	(0.40)	(0.33)	(0.47)	(0.65)
EBIT (US$)	**(36)**	**(52)**	**(102)**	**(8)**
Net interest exp.	(5)	(6)	(4)	(0)
Associates	—	—	—	—
Other adj,	(12)	(23)	(15)	(10)
PBT (US$)	**(54)**	**(80)**	**(121)**	**(18)**
Income taxes	—	—	—	—
Profit after tax	**(54)**	**(80)**	**(121)**	**(18)**
Minorities	—	0.23	—	—
Preferred dividends	—	—	—	—
Associates & other	—	—	—	—
Net profit (US$)	**(54)**	**(80)**	**(121)**	**(18)**
Other NPAT adjustments	—	—	—	—
Reported net income	**(54)**	**(80)**	**(121)**	**(18)**

Cash flow (US$)	12/13A	12/14E	12/15E	12/16E
EBIT	(36)	(52)	(102)	(8)
Net interest	(5)	(6)	(4)	(0)
Cash taxes paid	—	—	—	—
Change in working capital	41	11	8	(9)
Other cash & non-cash items	15	3	14	11
Cash flow from operations	15	(44)	(83)	(5)
CAPEX	(0)	(1)	(2)	(2)
Free cash flow to the firm	**15**	**(45)**	**(85)**	**(7)**
Acquisitions	—	—	—	—
Divestments	—	—	—	—
Other investment/(outflows)	—	—	—	—
Cash flow from investments	**(0)**	**(1)**	**(2)**	**(2)**
Net share issue/(repurchase)	0	136	1	102
Dividends paid	—	—	—	—
Issuance (retirement) of debt	10	—	—	—
Other	—	—	—	—
Cash flow from financing	**10**	**136**	**1**	**102**
Effect of exchange rates	—	—	—	—
Changes in Net Cash/Debt	**25**	**92**	**(84)**	**94**
Net debt at start	(15)	(40)	(131)	(47)
Change in net debt	**(25)**	**(92)**	**84**	**(94)**
Net debt at end	(40)	(131)	(47)	(142)

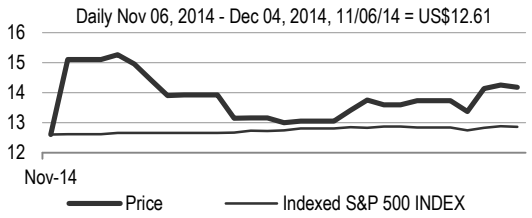
Balance sheet (US$ m)	12/13A	12/14E	12/15E	12/16E
Assets				
Cash and cash equivalents	40	131	47	142
Accounts receivable	0	4	2	12
Inventory	—	—	—	—
Other current assets	6	5	7	8
Total current assets	**46**	**140**	**56**	**161**
Total fixed assets	2	2	3	5
Intangible assets and goodwill	—	—	—	—
Investment securities	—	—	—	—
Other assets	0	0	0	0
Total assets	**47**	**143**	**60**	**166**
Liabilities				
Accounts payable	4	8	10	11
Short-term debt	—	—	—	—
Other short term liabilities	50	59	65	66
Total current liabilities	**54**	**67**	**75**	**78**
Long-term debt	—	—	—	—
Other liabilities	36	36	36	36
Total liabilities	**90**	**103**	**112**	**114**
Shareholders' equity	(42)	39	(52)	52
Minority interest	—	—	—	—
Total equity & liabilities	**47**	**143**	**60**	**166**
Net debt (US$ m)	(40)	(131)	(47)	(142)

Per share data	12/13A	12/14E	12/15E	12/16E
No. of shares (wtd avg)	6	18	33	36
CS adj. EPS (US$)	**(9.66)**	**(4.37)**	**(3.72)**	**(0.52)**
Prev. EPS (US$)	—	—	—	—
Dividend (US$)	—	—	—	—
Dividend payout ratio	—	—	—	—
Free cash flow per share	2.71	(2.44)	(2.60)	(0.21)

Key ratios and valuation	12/13A	12/14E	12/15E	12/16E
Growth (%)				
Sales	44.9	1,249.4	(56.4)	628.4
EBIT	(6.6)	43.2	98.4	(91.9)
Net profit	62.4	49.6	50.9	(84.9)
EPS	(1.5)	54.8	14.9	86.1
Margins (%)				
EBITDA margin	(1,293.7)	(138.0)	(628.2)	(6.5)
EBIT margin	(1,308.4)	(138.8)	(631.1)	(7.0)
Pretax margin	(1,949.7)	(216.8)	(747.6)	(15.5)
Net margin	(1,949.7)	(216.2)	(747.6)	(15.5)
Valuation metrics (x)				
EV/sales	153.4	8.9	25.6	2.7
EV/EBITDA	(11.9)	(6.5)	(4.1)	(42.0)
EV/EBIT	(11.7)	(6.4)	(4.1)	(38.7)
P/E	(1.5)	(3.2)	(3.8)	(27.5)
P/B	(0.8)	6.6	(8.9)	9.6
Asset turnover	0.06	0.26	0.27	0.71
ROE analysis (%)				
ROE stated-return on	75.2	277.8	1,906.0	(10,694.
ROIC	43.9	56.1	103.0	9.3
Interest burden	1.5	1.6	1.2	2.2
Tax rate	—	—	—	—
Financial leverage	—	—	—	—
Credit ratios (%)				
Net debt/equity	93.4	(333.6)	90.9	(270.6)
Net debt/EBITDA	1.1	2.6	0.5	18.6
Interest coverage ratio	(6.8)	(8.2)	(26.5)	(261.9)

Quarterly data	12/13A	12/14E	12/15E	12/16E
EPS for Q1	—	—	—	—
EPS for Q2	—	—	—	—
EPS for Q3	—	(0.87)	—	—
EPS for Q4	—	(0.82)	—	—

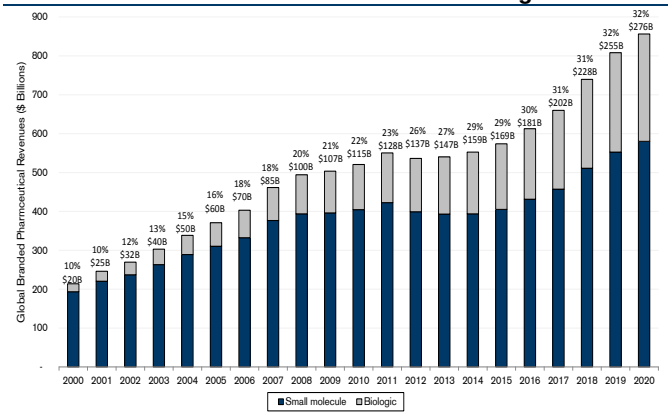
Source: Company data, Credit Suisse estimates.



On 11/24/14 the S&P 500 INDEX closed at 2069.41

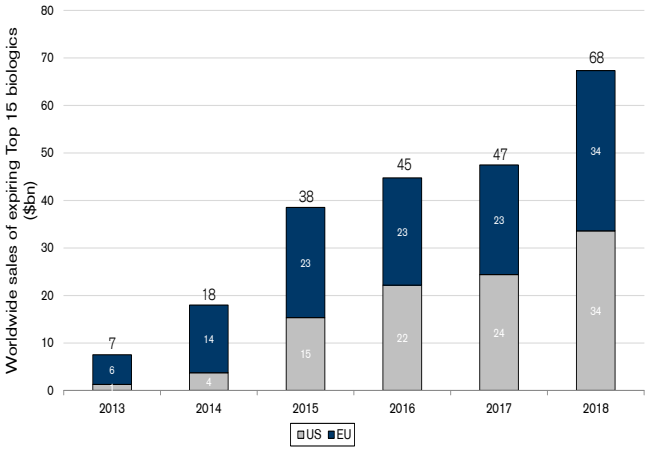
CHRS Key Charts

Exhibit 1: Global Branded Pharmaceutical Revenues Broken Down Into Small Molecules and Biologics



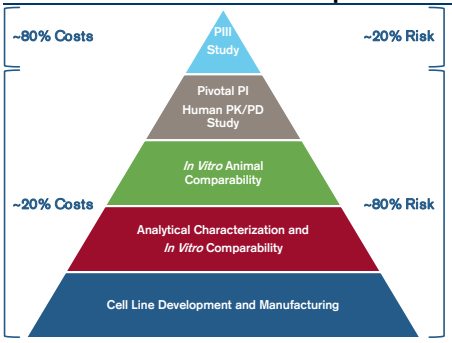
Source: Coherus

Exhibit 2: The $70B Near-Term Biosimilars Land Grab – Cumulative WW Sales of Expiring Biologics (Top 15)



Source: Credit Suisse estimates

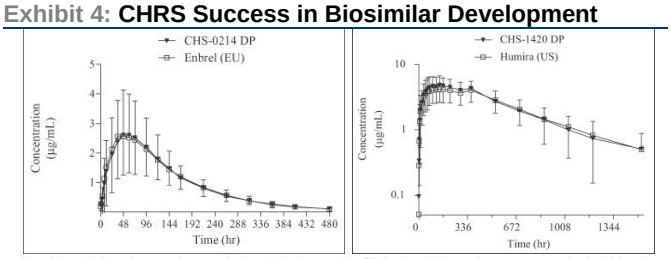
Exhibit 3: Biosimilars Development Process



- The development of Biosimilars is very different from the development of Innovative Biologics.
  1) The vast majority of the risk in developing Biosimilar is "front-loaded".
  2) However, ~80% of the risk can be mitigated with just ~20% of the expenditures.

Source: Coherus

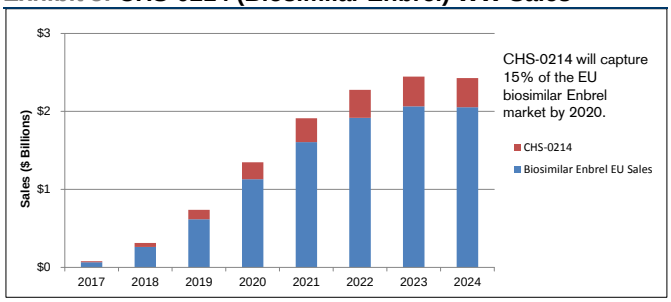
Exhibit 4: CHRS Success in Biosimilar Development



- Matching all the relevant characteristics of the Innovative Biologic will be an important step in derisking the Biosimilar heading into PIII clinical trials.
- The graphs above show that CHS-0214 and CHS-1420 match the PK profiles of Enbrel and Humira respectively very well, indicating that the amount of drug delivered into the blood is similar between the Biosimilar and Innovative Biologic.

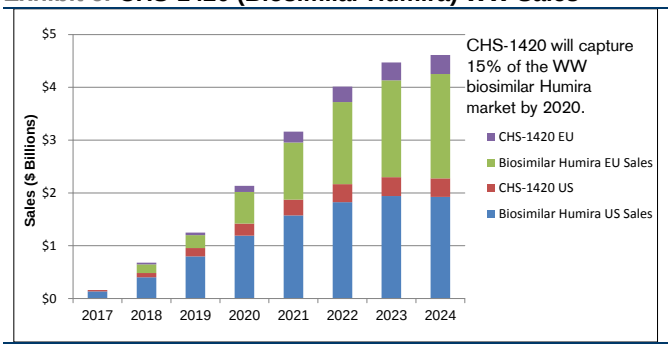
Source: Coherus

Exhibit 5: CHS-0214 (Biosimilar Enbrel) WW Sales



Source: Coherus, Credit Suisse research

Exhibit 6: CHS-1420 (Biosimilar Humira) WW Sales



Source: Coherus, Credit Suisse research

Investment Summary

We are initiating coverage of Coherus Biosciences with an Outperform rating and $22 target price. Coherus is a relatively young company, founded in 2010, but with "fit-for-purpose" experienced management. In five short years, Coherus has become one of the leading biologics platform companies. Coherus specializes in developing biosimilar therapeutics globally. Their lead pipeline assets are CHS-0214 and CHS-1420, two anti-TNF product candidates - etanercept (Enbrel) and adalimumab (Humira), respectively. Currently, CHS-0214 is in Phase III clinical trials for Rheumatoid Arthritis and Chronic Plaque Psoriasis. In addition, Coherus is initiating Phase III trials of its Humira biosimilar CHS-1420 in the first half of 2015. CHRS is actively discussing design of these clinical trials with regulatory authorities in the United States, Europe and Japan towards a goal of designing a global PIII study which would aid in global registrations. Coherus is planning to use the data from these trials to gain approval in all indications included in the label for Humira. Another important pipeline asset is CHS-1701, a long-acting G-CSF biosimilar for pegfilgrastim (Neulasta). Coherus is anticipating filing for MAA and BLA in 2016 for all three biosimilars.

Biosimilars are biological products that are highly similar to a reference/originator biological product and are developed with the intention of having the same mechanism of action, with identical safety and efficacy, in any given patient in all indications that originator product is approved for. The more similar biosimilar product is to the originator product, the better it is. Regulatory authorities assign the level of similarity with "highly similar with fingerprint-like similarity" assessment representing the gold standard, where proposed product meets the statutory standard for analytical similarity based on the integrated, multi-faceted and complementary approaches that are designed to identify highly sensitive analytical differences. In contrast to generic medicine, biosimilars are made up of complex proteins and are unlikely to be structurally identical to the reference product. In order for regulatory authorities to approve the biosimilar product, it must exhibit identical primary amino acid sequence and provide an extensive comparison of physicochemical and functional characteristics to the reference product.

The biosimilar market could potentially be a $70B land-grab opportunity when first biologics start going off patent by 2018. Since 2008, biologics have becoming a substantial portion of global pharmaceutical market, with $143B sales in 2013 and projected $190B sales in 2018. The best-selling drug Humira is estimated to reach $14B WW sales in 2015. It is projected that ~$70B worth of Biologics ($35B in US, $34B in ROW) will go off patent by 2018. Coherus is ideally positioned to prosper in Biosimilars market for multiple reasons: (1) Leadership team, (2) "clean sheet of paper" business model, (3) solid "horizontal" and "vertical" aspects of business model, and (4) strategically positioned and strong initial marketing partnerships with retained rights for key markets. This is in contrast to other major companies, where biosimilar strategies are only a fraction of business (e.g. AMGN, PFE, MRK).

The key valuation inflection points are the readouts of PIII clinical trials for CHS-0214 (Enbrel) in RA and PsO, and CHS-1420 (Humira) for RA and PsO in 2015. The Phase III international trial in RA is 480-patient, double-blind, randomized, parallel-group, active-control study comparing head to head CHS-0214 50mg to Enbrel 50mg subcutaneous weekly dose. Eligible DMARD (disease-modifying ant rheumatic drug)-refractory active rheumatoid arthritis patients are put on a stable dose of methotrexate, and then randomized 1:1 to CHS-0214 or Enbrel. The primary efficacy endpoint is ACR 20 (20% improvement according American College of Rheumatology Criteria) in 24 weeks' time frame. The same primary endpoint was used in the Enbrel registration trial for rheumatoid arthritis. Following the initial 24-week double-blind period, all patients will be moved to CHS-0214 treatment for a period of 6 months. The Phase III clinical trial in psoriasis is a double-blind, parallel group, multi-center study in 424 patients with active psoriasis. The trial is in two parts, Part 1 is a 12 week study, and Part 2 is a follow up 40 week program. Patients will be randomized 1:1 to CHS-0214 or Enbrel, 50 mg administered subcutaneously twice weekly for the first 12 weeks, followed by once weekly and continuing in the same treatment arms for an additional 40 weeks, including four weeks of follow-up. The primary efficacy endpoint will be the mean Psoriasis Area and

Severity Index, or PASI, or percentage of subjects achieving a 75% improvement in the PASI from baseline (PASI-75), scores at 12 weeks. Coherus has been highly successful in reproducing the pharmacokinetic profiles among other characteristics for both Humira and Enbrel biosimilars. In order for Biosimilar to be approved it has to perfectly match all the relevant characteristics of the reference product. CHS-0214 and CHS-1420 have identical PK profiles to Enbrel and Humira, respectively, indicating that the amount of drug delivered into the blood is similar between the Biosimilar and Innovative Biologic.

CHS-0214, Biosimilar Enbrel is projected to reach worldwide peak sales of $374M in 2024, capturing 15% of the EU Biosimilar Enbrel market. Our sales estimates for CHS-1420 are greater and projected to be $710M worldwide by 2024. Estimates are based on the following assumptions: (1) CHS-0214 and CHS-1420 are approved in all indications as the originator products in the EU and US. (2) The receptivity to biosimilars by payors and physicians is favorable. (3) Both biosimilars achieve 15% penetration of the market from the initial launch. (4) All technical barriers to entry are successfully overcome, for which Coherus has expertise and technological advantage in assuring biosimilar is of exactly the same quality as the reference product. (5) Of outmost importance is the timing of patent expiration for Enbrel and Humira in major markets. For Enbrel, patent expiry is in August 2015 and in Japan in September 2015. In case of Humira, patent expiry is in December 2016, after October 2018 in Europe and after August 2018 in Japan for RA, whereas for PsO in May 2020.

The rest of the pipeline could have further upside. Coherus is also working on long-acting G-CSF, CHS-1701. G-CSF is a protein that promotes the survival, proliferation (an increase in the number of cells due to cell growth and cell division) and differentiation of certain types of white blood cells known as neutrophils. Recombinant G-CSF therapies, such as filgrastim (Neupogen) and pegfilgrastim (Neulasta), are commonly used in the prevention of chemotherapy-induced neutropenia in cancer, which is characterized by an abnormally low level of neutrophils and other white blood cells that aid in the defense against infections. Coherus has selected pegfilgrastim (Neulasta) as the development target for their biosimilar G-CSF product candidate due to the large market opportunity. The combined opportunity for both short- and long-acting G-CSF therapies worldwide is estimated to exceed $5 billion in 2017, and pegfilgrastim therapies are expected to capture over 70% of the worldwide G-CSF market. It is estimated that the worldwide opportunity for Neulasta, the reference product for CHS-1701, will exceed $3.9 billion in 2017. Patent expiry for pegfilgrastim (Neulasta) biosimilar candidate in the United States is in October 2015 and in Europe in February 2018.

Valuation: Our DCF-derived TP of $22 assumes: (1) CHS-1420 (Humira biosimilar) is launched in the US and EU in 2017 and 2018 respectively. We model worldwide CH-1420 peak sales of ~$820M in 2024. (2) CHS-0214 (Enbrel biosimilar) is launched ex-US in 2017. We assume a 12% royalty rate and model peak ex-US royalties of $45M from Baxter and Daiichi Sankyo. We risk weight our cash flows by 50%. We do not assign a terminal value and we have not included Coherus' other pipeline in our DCF. Given the high regulatory uncertainty surrounding biosimilar approvals as well as potential patent related litigation, CHRS is a high-risk investment.

Exhibit 7: CHRS Quarterly Income Statement

Coherus Quarterly Income Statement											
(Dollars in '000s, except per share amounts)	Q1 2013A	Q2 2013A	Q3 2013A	Q4 2013A	FY 2013A	Q1 2014A	Q2 2014A	6 Months	Q3 2014E	Q4 2014E	FY 2014E
CH-1420					0			0	0	0	0
CH-0214					0			0	0	0	0
Collaboration and license revenue — related party					2,025			1,013	506	506	2,025
Collaboration and license revenue					726			7,548	23,774	3,774	35,096
Total Revenues	**0**	**0**	**0**	**0**	**2,751**	**0**	**0**	**8,561**	**24,280**	**4,280**	**37,121**
Cost of Sales					0			0	0	0	0
Gross Profit	0	0	0	0	2,751	0	0	8,561	24,280	4,280	37,121
R&D Expenses					31,279			32,861	19,000	22,000	73,861
SG&A Expenses					7,465			7,399	3,700	3,700	14,798
Total Operating Expenses	**0**	**0**	**0**	**0**	**38,744**	**0**	**0**	**40,260**	**22,700**	**25,700**	**88,659**
Operating Income/(Loss)	**0**	**0**	**0**	**0**	**(35,993)**	**0**	**0**	**(31,699)**	**1,581**	**(21,420)**	**(51,538)**
											0
Interest Income					0			0	0	0	0
Interest Expense					(5,293)			(3,899)	(1,200)	(1,200)	(6,299)
Other Income/(Expense)					(12,349)			(14,642)	(4,000)	(4,000)	(22,642)
Total Interest & Other Income/(Expenses)	0	0	0	0	(17,642)	0	**0**	**(18,541)**	(5,200)	(5,200)	(28,941)
											0
Pre-Tax Profit/(Loss)	**0**	**0**	**0**	**0**	**(53,635)**	**0**	**0**	**(50,240)**	**(3,620)**	**(26,620)**	**(80,479)**
Income Tax Expense					0	0	0	0	0	0	0
Effective Tax Rate					*35.0%*			*35.0%*	*35.0%*	*35.0%*	*35.0%*
Consolidated Net Income/(Loss)	**0**	**0**	**0**	**0**	**(53,635)**	**0**	**0**	**(50,240)**	**(3,620)**	**(26,620)**	**(80,479)**
Net loss attributable to noncontrolling interests					0			113	60	60	233
Consolidated Net Income/(Loss) to Coherus	**0**	**0**	**0**	**0**	**(53,635)**	**0**	**0**	**(50,127)**	**(3,560)**	**(26,560)**	**(80,246)**
Basic EPS					**(9.66)**			**(11.99)**	**(0.87)**	**(0.82)**	**(4.38)**
Diluted EPS					**(9.66)**			**(11.99)**	**(0.87)**	**(0.82)**	**(4.38)**
Basic Shares					5,554			4,182	4,182	32,559	18,371
Q/Q Growth									*0.0%*	*678.5%*	
Diluted Shares					5,554			4,182	4,182	32,559	18,371
Q/Q Growth		-	-	-					*0.0%*	*678.5%*	

Source: Company data, Credit Suisse estimates

Exhibit 8: CHRS Annual Income Statement

Coherus Annual Income Statement											
(Dollars in '000s, except per share amounts)	**2012A**	**2013A**	**2014E**	**2015E**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**	**2021E**	**2022E**
CH-1420	0	0	0	0	0	37,800	138,429	254,668	417,977	599,374	738,550
CH-0214	0	0	0	0	0	1,574	6,188	14,436	26,113	36,621	43,128
Collaboration and license revenue — related party	1,899	2,025	2,025	2,025	2,025	0	0	0	0	0	0
Collaboration and license revenue	0	726	35,096	14,178	116,000	85,000	0	0	0	0	0
Total Revenues	**1,899**	**2,751**	**37,121**	**16,203**	**118,025**	**124,374**	**144,617**	**269,103**	**444,090**	**635,995**	**781,678**
Cost of Sales	0	0	0	0	0	5,670	20,418	36,927	59,562	83,912	101,551
Gross Profit	1,899	2,751	37,121	16,203	118,025	118,704	124,199	232,177	384,528	552,083	680,127
R&D Expenses	34,886	31,279	73,861	103,457	108,777	114,215	119,926	122,500	125,134	127,829	130,589
SG&A Expenses	5,531	7,465	14,798	15,010	17,518	25,244	37,540	55,862	77,314	100,955	120,792
Total Operating Expenses	40,417	38,744	88,659	118,466	126,295	139,460	157,467	178,361	202,448	228,785	251,381
Operating Income/(Loss)	**(38,518)**	**(35,993)**	**(51,538)**	**(102,263)**	**(8,270)**	**(20,755)**	**(33,268)**	**53,815**	**182,080**	**323,298**	**428,746**
Interest Income	0	0	0	262	95	283	272	240	369	752	1,277
Interest Expense	(1,514)	(5,293)	(6,299)	(4,126)	(126)	(126)	(126)	(126)	(126)	(126)	(126)
Other Income/(Expense)	7,014	(12,349)	(22,642)	(15,000)	(10,000)	(5,000)	0	0	0	0	0
Total Interest & Other Income/(Expenses)	5,500	(17,642)	(28,941)	(18,864)	(10,032)	(4,843)	146	114	242	626	1,151
Pre-Tax Profit/(Loss)	**(33,018)**	**(53,635)**	**(80,479)**	**(121,127)**	**(18,301)**	**(25,598)**	**(33,122)**	**53,929**	**182,323**	**323,924**	**429,897**
Income Tax Expense	0	0	0	0	0	0	0	0	0	74,287	150,464
Effective Tax Rate	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*22.9%*	*35.0%*
Consolidated Net Income/(Loss)	**(33,018)**	**(53,635)**	**(80,479)**	**(121,127)**	**(18,301)**	**(25,598)**	**(33,122)**	**53,929**	**182,323**	**249,637**	**279,433**
Net loss attributable to noncontrolling interests	0	0	233	0	0	0	0	0	0	0	0
Consolidated Net Income/(Loss)	**(33,018)**	**(53,635)**	**(80,246)**	**(121,127)**	**(18,301)**	**(25,598)**	**(33,122)**	**53,929**	**182,323**	**249,637**	**279,433**
Basic EPS	**(9.51)**	**(9.66)**	**(4.37)**	**(3.72)**	**(0.52)**	**(0.66)**	**(0.85)**	**1.38**	**4.62**	**6.25**	**6.89**
Diluted EPS	**(9.51)**	**(9.66)**	**(4.37)**	**(3.72)**	**(0.52)**	**(0.66)**	**(0.85)**	**1.20**	**3.97**	**5.33**	**5.85**
Basic Shares	3,472	5,554	18,371	32,600	35,535	38,534	38,752	39,060	39,463	39,965	40,563
Y/Y Growth		*60.0%*	*230.7%*	*77.5%*	*9.0%*	*8.4%*	*0.6%*	*0.8%*	*1.0%*	*1.3%*	*1.5%*
Diluted Shares	3,472	5,554	18,371	32,600	35,535	38,534	38,752	44,962	45,923	46,851	47,745
Y/Y Growth		*60.0%*	*230.7%*	*77.5%*	*9.0%*	*8.4%*	*0.6%*	*16.0%*	*2.1%*	*2.0%*	*1.9%*

Source: Company data, Credit Suisse estimates

Exhibit 9: CHRS Balance Sheet

Coherus Balance Sheet											
(Dollars in '000s, except per share amounts)	**2012A**	**2013A**	**2014E**	**2015E**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**	**2021E**	**2022E**
ASSETS											
Current Assets:											
Cash	14,548	39,554	131,100	47,210	141,620	136,163	119,989	184,201	376,076	638,494	939,848
Restricted cash	50	50	50	50	50	50	50	50	50	50	50
Accounts Receivables from related parties	158	278	3,751	1,637	11,927	12,569	14,614	27,194	44,877	64,270	78,992
Notes receivable from related parties	0	107	107	107	107	107	107	107	107	107	107
Prepaid assets	9,983	5,688	2,660	3,554	3,789	4,184	4,724	5,351	6,073	6,864	7,541
Other current assets	60	0	2,660	3,554	3,789	4,184	4,724	5,351	6,073	6,864	7,541
Inventory	0	0	0	0	0	284	1,021	1,846	2,978	4,196	5,078
Total Current Assets	24,799	45,677	140,328	56,112	161,282	157,540	145,229	224,100	436,235	720,844	1,039,157
Property and equipment, net	1,605	1,743	2,414	3,444	4,791	6,416	8,286	10,372	12,647	15,089	17,679
Notes receivable from related parties — non-current	123	0	0	0	0	0	0	0	0	0	0
Other assets	6	27	27	27	27	27	27	27	27	27	27
TOTAL ASSETS	**26,533**	**47,447**	**142,769**	**59,583**	**166,100**	**163,983**	**153,542**	**234,499**	**448,909**	**735,960**	**1,056,863**
LIABILITIES											
Current Liabilities											
Accounts payable	2,209	3,302	7,556	10,096	10,764	11,886	13,420	15,201	17,254	19,498	21,424
Accounts payable — related parties	1,693	383	383	383	383	383	383	383	383	383	383
Accrued and other liabilities	3,588	7,279	16,657	22,257	23,728	26,201	29,584	33,510	38,035	42,983	47,228
Deferred revenue	2,025	14,283	14,283	14,283	14,283	14,283	14,283	14,283	14,283	14,283	14,283
Convertible notes	0	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
Convertible notes — related parties	0	3,092	3,092	3,092	3,092	3,092	3,092	3,092	3,092	3,092	3,092
Convertible preferred stock warrant liability	1,738	24,251	24,251	24,251	24,251	24,251	24,251	24,251	24,251	24,251	24,251
Total Current Liabilities	11,253	53,701	67,333	75,473	77,611	81,206	86,124	91,831	98,409	105,601	111,772
Deferred revenue — non-current	6,076	28,567	28,567	28,567	28,567	28,567	28,567	28,567	28,567	28,567	28,567
Contingent liability to collaborator	0	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
Other liabilities — non-current	12	61	61	61	61	61	61	61	61	61	61
TOTAL LIABILITIES	**17,341**	**89,829**	**103,461**	**111,601**	**113,739**	**117,334**	**122,252**	**127,959**	**134,537**	**141,729**	**147,900**
EQUITY											
Shareholders' Equity:											
Preferred Stock Series A	1,191	1,191	0	0	0	0	0	0	0	0	0
Preferred Stock Series B	53,504	53,504	0	0	0	0	0	0	0	0	0
Preferred Stock Series C	0	0	0	0	0	0	0	0	0	0	0
Common Stock	1	1	34	34	39	40	40	40	41	41	42
Additional Paid-In-Capital	453	2,514	202,703	213,504	326,178	341,064	358,827	380,148	405,657	435,878	471,175
Accumulated Other Comprehensive Income	(45,957)	(99,592)	(163,429)	(265,556)	(273,857)	(294,455)	(327,577)	(273,648)	(91,325)	158,312	437,746
TOTAL SHAREHOLDERS' EQUITY	**9,192**	**(42,382)**	**39,308**	**(52,018)**	**52,360**	**46,648**	**31,290**	**106,540**	**314,372**	**594,231**	**908,963**
TOTAL LIABILITIES & EQUITY	**26,533**	**47,447**	**142,769**	**59,583**	**166,100**	**163,983**	**153,542**	**234,499**	**448,909**	**735,960**	**1,056,863**

Source: Company data, Credit Suisse estimates

Exhibit 10: CHRS Cash Flow Statement

Coherus Cash Flow Statement											
(Dollars in '000s, except per share amounts)	**2012A**	**2013A**	**2014E**	**2015E**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**	**2021E**	**2022E**
Operating Activities											
Consolidated Net Profit (Loss)	(33,018)	(53,635)	(80,479)	(121,127)	(18,301)	(25,598)	(33,122)	53,929	182,323	249,637	279,433
Adjustments:											
Depreciation and amortization	221	404	329	470	653	875	1,130	1,414	1,725	2,058	2,411
Remeasurement of convertible preferred stock warrant an	(639)	4,557	22,642	15,000	10,000	5,000	0	0	0	0	0
Fair value of warrants in excess of debt proceeds recognized at issu		3,669	0	0	0	0	0	0	0	0	0
Fair value of embedded derivative in excess of debt proceeds recogn		4,096	0	0	0	0	0	0	0	0	0
Preferred stock issued in exchange for services	7,956	7,579	0	0	0	0	0	0	0	0	0
Gain on extinguishment of 2011 Notes	(6,369)	0	0	0	0	0	0	0	0	0	0
Noncash interest expense	1,514	5,293	(6,000)	4,000	0	0	0	0	0	0	0
Stock-based compensation expense	443	2,045	9,101	10,011	10,812	11,353	11,920	12,516	13,142	13,799	14,489
Change in operating assets & liabilities:											
Notes receivable from related parties	(5)	16	0	0	0	0	0	0	0	0	0
Receivables from related parties	(158)	(120)	(3,473)	2,114	(10,290)	(642)	(2,046)	(12,580)	(17,683)	(19,393)	(14,722)
Prepaid assets	(1,999)	(3,284)	3,028	(894)	(235)	(395)	(540)	(627)	(723)	(790)	(678)
Other current assets	(50)	60	(2,660)	(894)	(235)	(395)	(540)	(627)	(723)	(790)	(678)
Other assets	207	(21)	0	0	0	0	0	0	0	0	0
Accounts payable	1,685	924	4,254	2,540	667	1,122	1,535	1,781	2,053	2,245	1,926
Accounts payable — related parties	1,693	(1,310)	0	0	0	0	0	0	0	0	0
Accrued and other liabilities	2,176	2,845	9,378	5,600	1,471	2,473	3,383	3,926	4,525	4,948	4,245
Deferred revenue	8,101	34,749	0	0	0	0	0	0	0	0	0
Contingent liability to collaborator		7,500	0	0	0	0	0	0	0	0	0
Other liabilities — non-current	(9)	56	0	0	0	0	0	0	0	0	0
Inventories	0	0	0	0	0	(284)	(737)	(825)	(1,132)	(1,218)	(882)
Net Cash provided by (used) in operating activities	**(18,251)**	**15,423**	**(43,880)**	**(83,180)**	**(5,457)**	**(6,490)**	**(19,017)**	**58,907**	**183,507**	**250,496**	**285,545**
Investing Activities											
Purchases of property and equipment	(1,783)	(373)	(1,000)	(1,500)	(2,000)	(2,500)	(3,000)	(3,500)	(4,000)	(4,500)	(5,000)
Increase in restricted cash	(40)	0	0	0	0	0	0	0	0	0	0
Net cash provided by (used in) investing activities	**(1,823)**	**(373)**	**(1,000)**	**(1,500)**	**(2,000)**	**(2,500)**	**(3,000)**	**(3,500)**	**(4,000)**	**(4,500)**	**(5,000)**
Financing Activities:											
Proceeds from issuances of Series A/B convertible prefer	26,938	0	54,720	0	0	0	0	0	0	0	0
Proceeds from issuance of convertible notes	0	2,900	0	0	0	0	0	0	0	0	0
Proceeds from issuance of convertible notes — related pa	0	7,050	0	0	0	0	0	0	0	0	0
Proceeds from issuance of common stock upon exercise	0	6	206	790	1,868	3,533	5,843	8,805	12,368	16,422	20,809
Proceeds from issuance of common stock (IPO, secondary offerings)			81,500		100,000						
Net cash provided by financing activities	**26,938**	**9,956**	**136,426**	**790**	**101,868**	**3,533**	**5,843**	**8,805**	**12,368**	**16,422**	**20,809**
Effect of exchange rate changes on cash and Cash Equival	0	0	0	0	0	0	0	0	0	0	0
Net increase (decrease) in cash & cash equivalents	6,864	25,006	91,546	(83,890)	94,411	(5,457)	(16,174)	64,212	191,875	262,418	301,354
Cash & Cash Equivalents at the beginning of the year	7,684	14,548	39,554	131,100	47,210	141,620	136,163	119,989	184,201	376,076	638,494
Cash & Cash Equivalent at the end of the Year	14,548	39,554	131,100	47,210	141,620	136,163	119,989	184,201	376,076	638,494	939,848

Source: Company data, Credit Suisse estimates

Exhibit 11: **CHRS DCF Valuation**

CHRS Valuation *(In $ '000s)*	2012A	2013A	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
FCFE	(20,034)	15050	(44,880)	(84,680)	(7,457)	(8,990)	(22,017)	55,407	179,507	245,996	280,545
R&D Add-Back				0	0	0	0	0	0	0	0
% of Add-Back				*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
R&D Tax Benefit				0	0	0	0	0	0	0	0
Modified FCFE				(84,680)	(7,457)	(8,990)	(22,017)	55,407	179,507	245,996	280,545
PV of FCFE				**(84,680)**	**(6,779)**	**(7,430)**	**(16,542)**	**37,844**	**111,460**	**138,858**	**143,964**

Total PV of FCFE (2015-2030)	1,166,699
Net Cash	126,947
Shares Out	32,575
Price/Share	**$21.81**
Cash/Share	**$3.90**
Risk Weighting	***50.0%***

Source: Company data, Credit Suisse estimates

Exhibit 12: **Coherus Biosciences (CHRS) The Leading Biosimilars Pure Play**

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Coherus: Investment Highlights – The Leading Biosimilar Pure Play

- The biosimilar ("generic biologics") market could be huge, as $70B worth of Biologics sales go off patent by 2017
- Coherus is the leading biosimilar "pure play" – biosimilar strategies are a fractional part of other major pharma/biotech companies (e.g. AMGN, PFE, MRK)
- Biopharmaceutical company founded in 2010 and based in Redwood City, CA
- Possesses a platform to develop biosimilars
- Lead pipeline compounds are CHS-0214 (Enbrel Biosimilar), and CHS-1420 (Humira Biosimilar)
- Expecting topline PIII data on CHS-0214 in psoriasis in H1'15 and rheumatoid arthritis in H2'15. Topline PIII data for CHS-0214 will serve validation of its platform
- Anticipating topline PIII data on CHS-1420 in 2016
- Partnered with high-quality companies such as Baxter and Daiichi Sankyo

Sources: Credit Suisse research

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What Is In Our Report?

- What is a biosimilar?
- How big is the biosimilar market?
- What is the regulatory pathway in US and EU?
- What lessons can be gained from EU?
- What is the Coherus story?
- The Coherus pipeline.
- Other players in the biosimilars space.

Sources: Credit Suisse research

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Key Differences Between Chemical And Biologics Medicines

	Chemicals	Biologics
Origin	Chemical substances	Derived from living sources (bacteria, cell cultures etc)
Complexity/size	Molecule size of 20-100 atoms (e.g. 42 in Omeprazole); molecular structure is largely uniform	Large molecule with 5,000-50,000 atoms, can have complex 3D folding structures, and can comprise carbohydrates, lipids, etc.
Manufacturing process	Chemically synthesized	Recombinant DNA technology (by cultured organisms)
Manufacturing variability	Low variability	High variability
Typical distribution	Pharmacy	Administered by doctors at hospitals/clinics
Development time for generic	2 years	Six to eight years
Development cost for generic	US$1-5 mn	US$10-150 mn
Cost for manufacturing facility	about US$20 mn	US$30 mn for bacterial and US$200 mn plus for mammalians
Delivery method	Oral + injectables	Mostly injectables
Typical reimbursement	As pharmacy benefits	As medical benefits
Approval route for new drugs in the US	NDA (New Drug Application)	BLA (Biologics License Application)
Law governing approval	Federal Drugs and Cosmetic Acts (FD&C, 1938)	Public Health Safety Act (PHS, 1944)
Immunogenicity	Little or no immune response	Biologics invokes immune response

Sources: Credit Suisse research

Exhibit 16: **Biosimilar's Are NOT Generics?**

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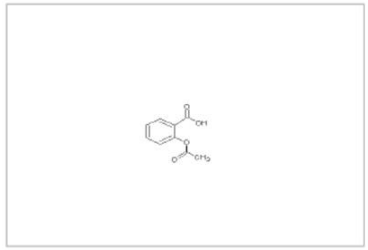
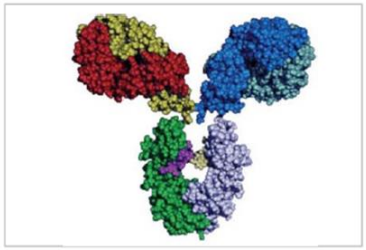
Biosimilar's Are NOT Generics?





	Small molecule	Biosimilar
Size	Small	Large
Complexity	Low	High
Stability	Stable	Fragile
Route of administration	Various	Injection

Sources: Coherus Biosciences, Sandoz, Credit Suisse research

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So What Is a Biosimilar? A Biological Molecule That Is Similar To Originator – The More Similar The Better!

What are biosimilars?

Biosimilars are biological products that are highly similar to a reference/originator biological product and are developed with the intention of having the same mechanism of action and treating the same disease as the original biological medicine (Slide 3).

What does the term "highly similar" mean?

The term "highly similar" means that the there are only minor differences in clinically inactive components and no clinically meaningful differences between the biosimilar product and the reference product in terms of the safety, purity and potency of the product.

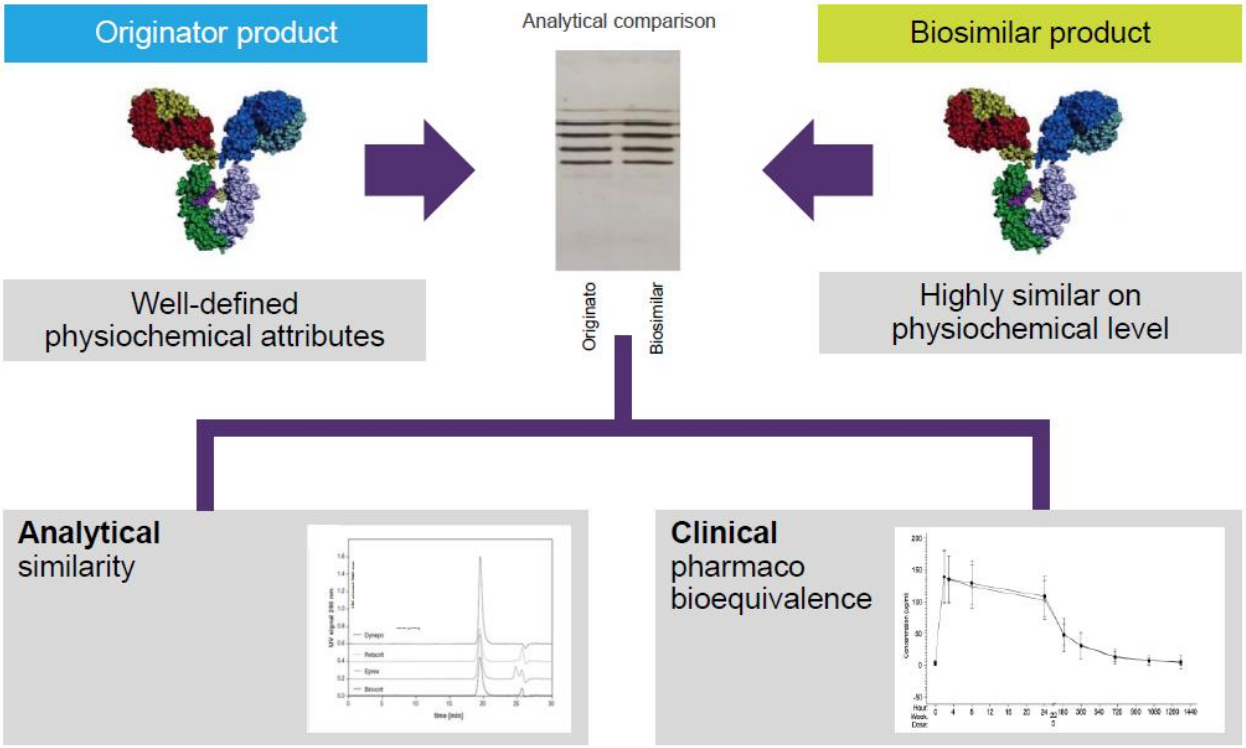
Are biosimilars "generic" biologics?

No. While biosimilars are medicines that are intended to have the same mechanism of action and treat the same disease as the original/reference biological product, biological products are made up of complex proteins and are unlikely to be structurally identical to the reference product. On the other hand, generic medicines contain the same quantity of active substance as the reference medicine and are used at the same dose to treat the same disease and are equally safe and effective. Generics, generally refer to small molecule drugs whose structure can usually be completely defined and entirely reproduced (Slide 4).

Sources: Credit Suisse research

Understanding Biosimilars

Biosimilars are biologic drugs similar to the originator biologic.



Plus clinical studies to "prove" biosimilar = originator in real world setting

Sources: Hospira, Credit Suisse research

Exhibit 19: **Biologics Are Becoming A Larger Proportion Of Global Pharmaceutical Market…**

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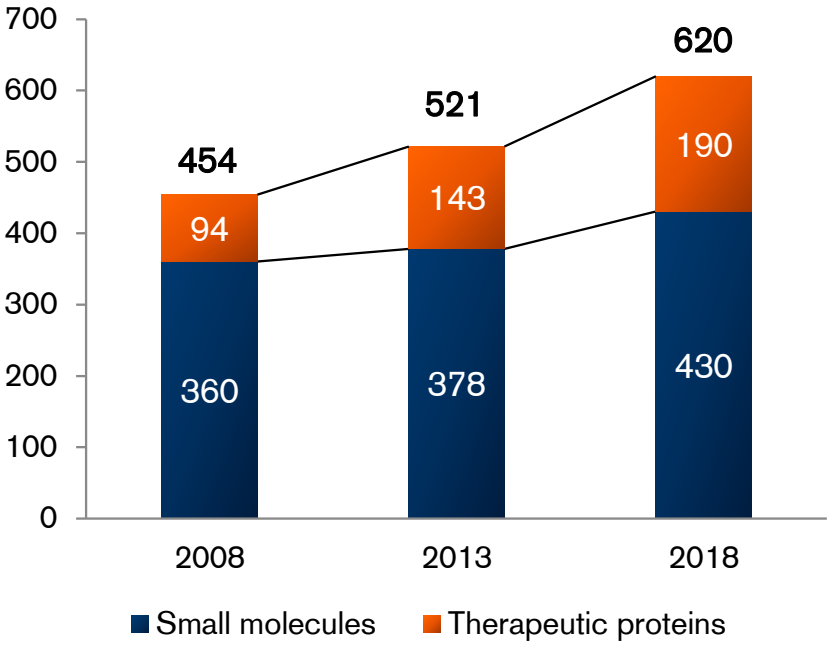
Biologics Are Becoming A Larger Proportion Of Global Pharmaceutical Market…

Biologics sales were ~$143Bn in 2013 and are expected to grow to ~$190Bn by 2018

Global Pharmaceutical Market, 2008-2018, $Bn



CAGR (%)

	2008-2013	2013-2018
	3%	4%
	9%	6%
	1%	3%

Key market characteristics

- Majority of current sales from mega blockbusters
- Monoclonal antibodies (MAbs) are largest and fastest growing segment
- ~30% of industry pipeline are biologics

Sources: Sandoz, Credit Suisse research

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…Especially the Best Selling Drugs

2008						2015E				
Rank	Product	Company	Technology	WW Sales		Rank	Product	Company	Technology	WW Sales
1	Lipitor	Pfizer	Chiral Chem	13,346		1	Humira	AbbVie	MAb	14,102
2	Plavix	BMS/Aventis	Small Molecule	9,025		2	Lantus	Roche	Recombinant	9,331
3	Advair	GSK	Small Molecule	7,656		3	Enbrel	Amgen	Recombinant	8,714
4	Enbrel	Wyeth/Amgen/Takeda	Recombinant	6,453		4	Harvoni	Gilead	Small Molecule	8,285
5	Diovan	Novartis/Ipsen	Small Molecule	5,740		5	Remicade	MRK/J&J	MAb	7,706
6	Remicade	SGP/J&J/Mitsubishi	MAb	5,300		6	Herceptin	Roche	MAb	6,761
7	Nexium	AstraZeneca	Chiral Chem	5,200		7	Advair	GSK	Small Molecule	6,373
8	Rituxan	Roche	Ab	4,743		8	Rituxan	Roche	Ab	6,314
9	Herceptin	Roche	MAb	4,713		9	Avastin	Roche	MAb	6,288
10	Seroquel	AstraZeneca	Small Molecule	4,660		10	Januvia	Merck	Small Molecule	6,286
	Total	**% Biotech**	**39%**	**66,836**			**Total**	**% Biotech**	**78%**	**80,160**

Sources: Credit Suisse research

Exhibit 21: **It Is Projected That ~$70B Of Biologics ($25B in US, $45B in ROW) Are Expected To Come Off Patent By 2018**

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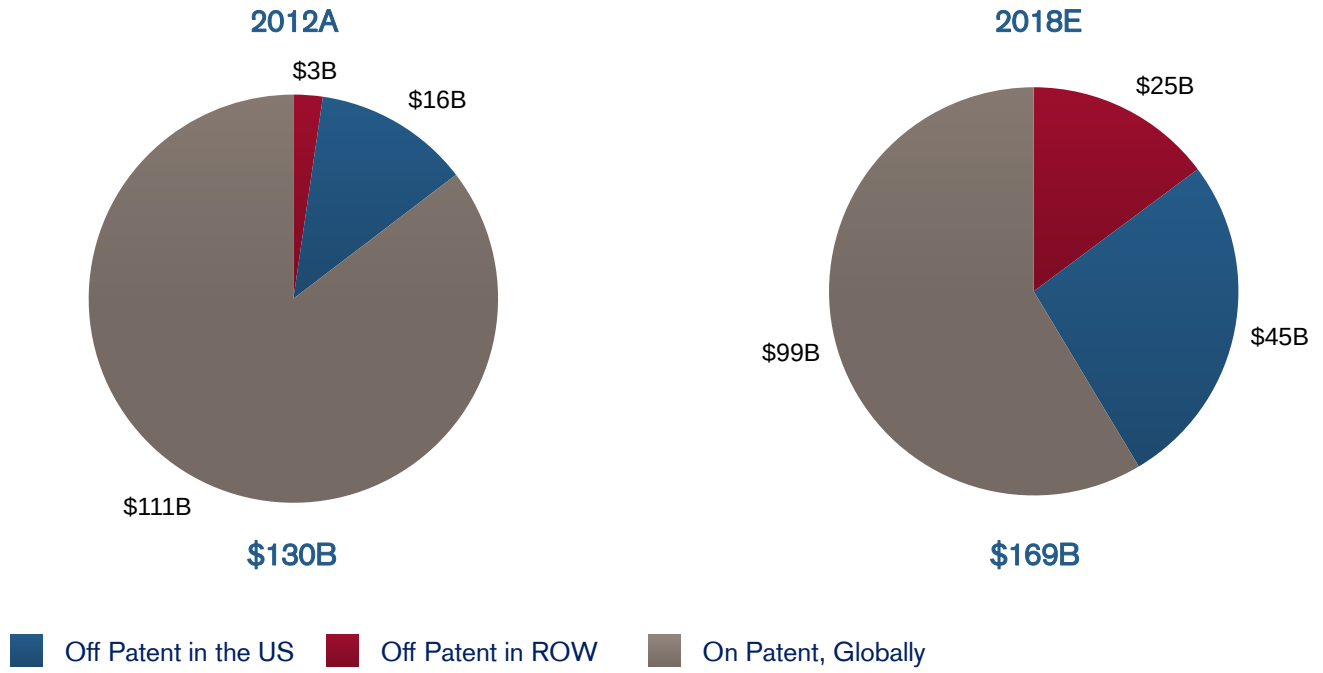
It Is Projected That ~$70B Of Biologics ($25B in US, $45B in ROW) Are Expected To Come Off Patent By 2018



Sources: Sandoz, Credit Suisse research

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Exhibit 22: **The Biosimilar Land Grab Molecules**

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The Biosimilar Land Grab Molecules

Details of Top 15 Biologics (by 2013 WW Sales)					
Biologic	**Company**	**Mechanism of action**	**Patent Expiration - US**	**Patent Expiration - EU**	**2013 Sales**
Humira	AbbVie	TNF	Dec-2016	Apr-2018	10,698
Enbrel	Amgen	TNF	Nov-2028	Feb-2015	8,530
Lantus	Sanofi	LA Insulin	Feb-2015	May-2015	7,469
Herceptin	Roche	HER2	Jun-2019	Jul-2014	6,743
Avastin	Roche/Genentech	VEGF	Jul-2019	Jan-2022	6,624
Remicade	MRK/J&J	TNF	Sep-2018	Feb-2015	6,309
Rituxan	BIIB	CD20	Nov-2013	Sep-2016	5,976
Neulasta	Amgen/Roche	CSF	Oct-2015	Aug-2017	4,223
Lucentis	Roche/Novartis	VEGF	Jun-2020	Jun-2022	4,089
Copaxone	Teva/Sanofi	Immunomodulator	May-2014	Jan-2015	3,785
Avonex	BIIB/Roche	Interferon beta	Jan-2026	2015	3,065
NovoLog/NovoRapid	Novo	SA Insulin	Jan-2017	Jan-2017	2,964
Rebif	MRK-KGA	Interferon beta	Dec-2013	Feb-2012	2,489
Advate	Baxter	Factor 8			2,360
Victoza	Novo	GLP-1 analogue	Jun-2022	Jul-2022	2,118

Sources: Company data, Credit Suiss research

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Exhibit 23: **Regulatory Guidelines Have Now Been Established In Major Markets**

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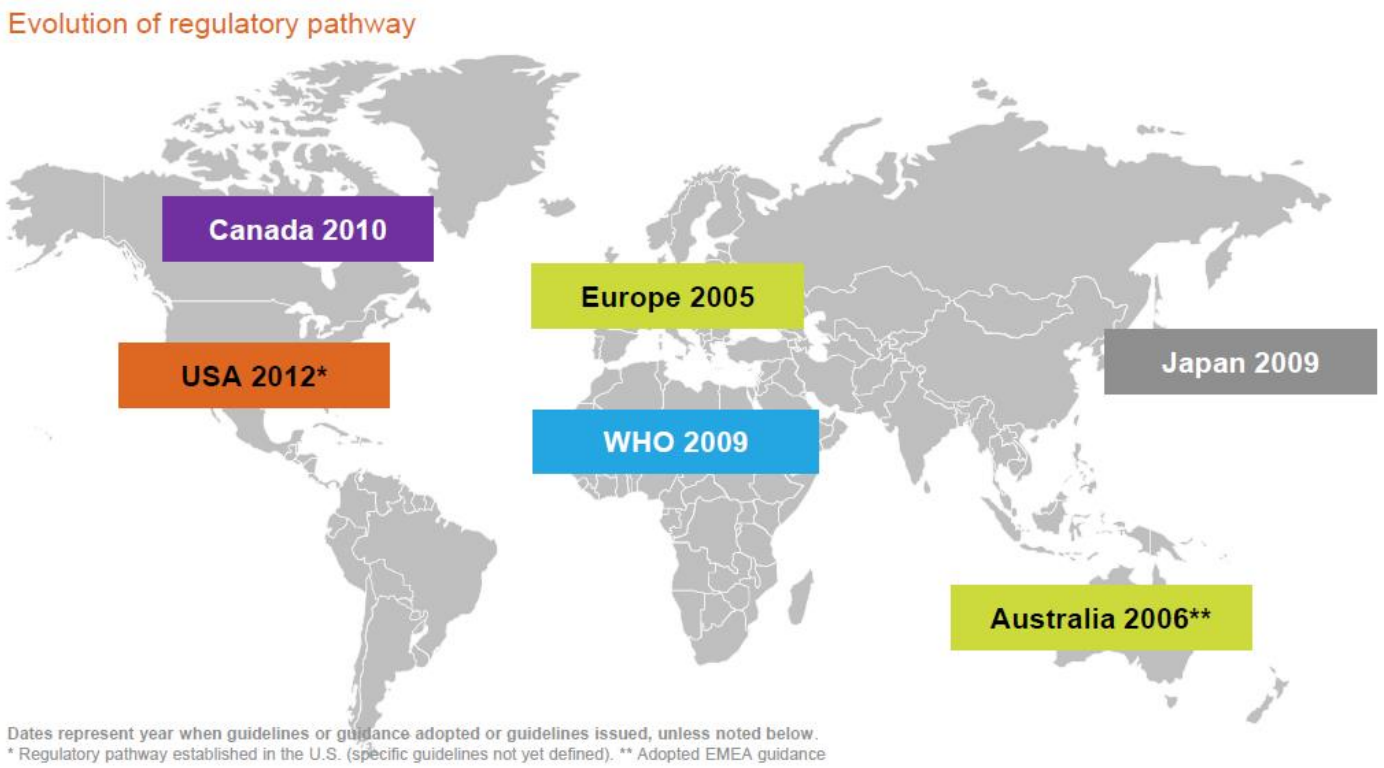
Regulatory Guidelines Have Now Been Established In Major Markets



Sources: Hospira, Credit Suiss research

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Biosimilars Approved and Refused by the EMA in Europe

Medicine Name	Active Substance	Company Name	Status	Authorisation date	Therapeutic Area
Abseamed	epoetin alfa	Medice Arzneimittel Pütter GmbH & Co. KG	Authorised	28/08/2007	Anaemia Cancer Chronic kidney failure
Alpheon	recombinant human interferon alfa-2a	BioPartners GmbH	Refused	-	HCV
Bemfola	follitropin alfa	Finox Biotech	CHMP positive opinion	1/23/2014	Anovulation (IVF)
Binocrit	epoetin alfa	Sandoz GmbH	Authorised	28/08/2007	Anaemia Chronic kidney failure
Biograstim	filgrastim	AbZ-Pharma GmbH	Authorised	15/09/2008	Cancer Hematopoetic Stem Cell Transplantation Neutropenia
Epoetin Alfa Hexal	epoetin alfa	Hexal AG	Authorised	28/08/2007	Anaemia Cancer Chronic kidney failure
Filgrastim Hexal	filgrastim	Hexal AG	Authorised	06/02/2009	Cancer Hematopoetic Stem Cell Transplantation Neutropenia
Filgrastim ratiopharm	filgrastim	Ratiopharm GmbH	Withdrawn	15/09/2008	Cancer Hematopoetic Stem Cell Transplantation Neutropenia
Grastofil	filgrastim	Apotex Europe BV	Authorised	18/10/2013	Neutropenia
Inflectra	infliximab	Hospira UK Limited	Authorised	10/09/2013	Ankylosing spondylitis Crohn's disease Psoriatic arthritis Psoriasis Rheumatoid arthritis Ulcerative colitis

Sources: Credit Suisse research

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Exhibit 25: **Biosimilars Approved and Refused by the EMA in Europe**

CREDIT SUISSE

Medicine Name	Active Substance	Marketing Authorisation Holder	Status	Authorisation date	Therapeutic Area
Nivestim	filgrastim	Hospira UK Ltd.	Authorised	08/06/2010	Cancer Hematopoetic Stem Cell Transplantation Neutropenia
Omnitrope	somatropin	Sandoz GmbH	Authorised	12/04/2006	Pituitary dwarfism Prader-Willi syndrome Turner syndrome
Ovaleap	follitropin alfa	Teva Pharma B.V.	Authorised	27/09/2013	Anovulation (IVF)
Ratiograstim	filgrastim	Ratiopharm GmbH	Authorised	15/09/2008	Cancer Hematopoetic Stem Cell Transplantation Neutropenia
Remsima	infliximab	Celltrion Healthcare Hungary Kft.	Authorised	10/09/2013	Ankylosing spondylitis Crohn's disease Psoriatic arthritis Psoriasis Rheumatoid arthritis Ulcerative colitis
Retacrit	epoetin zeta	Hospira UK Limited	Authorised	18/12/2007	Anaemia Autologous blood transfusion Cancer Chronic kidney failure
Silapo	epoetin zeta	Stada Arzneimittel AG	Authorised	18/12/2007	Growth Hormone Deficiency
Tevagrastim	filgrastim	Teva Generics GmbH	Authorised	15/09/2008	Cancer Hematopoetic Stem Cell Transplantation Neutropenia
Valtropin	somatropin	BioPartners GmbH	Withdrawn	24/04/2006	Pituitary dwarfism Turner syndrome
Zarzio	filgrastim	Sandoz GmbH	Authorised	06/02/2009	Cancer Hematopoetic Stem Cell Transplantation Neutropenia

Sources: Credit Suiss research

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Exhibit 26: **Global Branded Pharmaceutical Revenues Broken Down Into Small Molecules and Biologics – By 2016 >30% Market Will Be Biologics**

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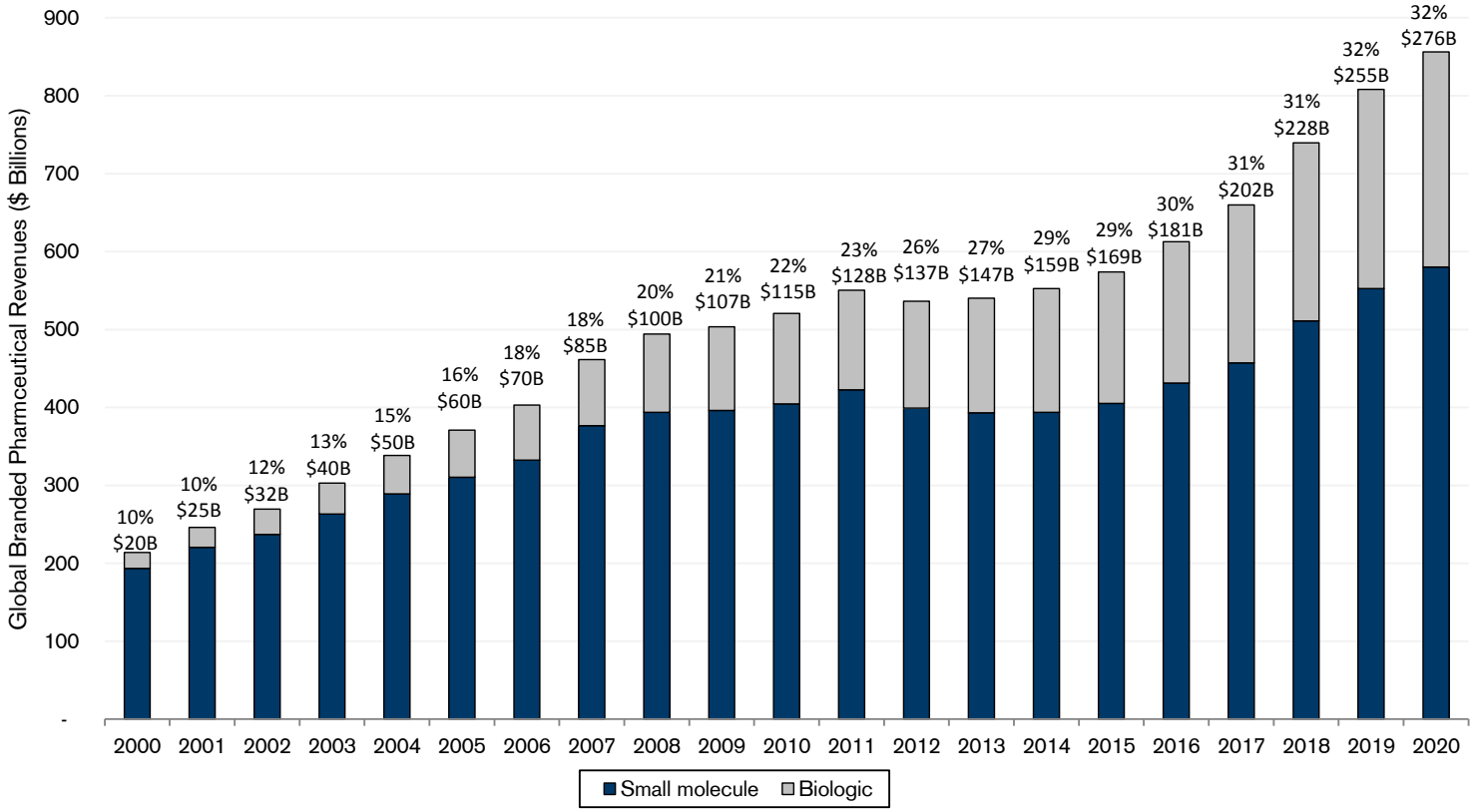
Global Branded Pharmaceutical Revenues Broken Down Into Small Molecules and Biologics – By 2016 >30% Market Will Be Biologics



Source: Credit Suisse research, Credit Suisse PharmaValues Database

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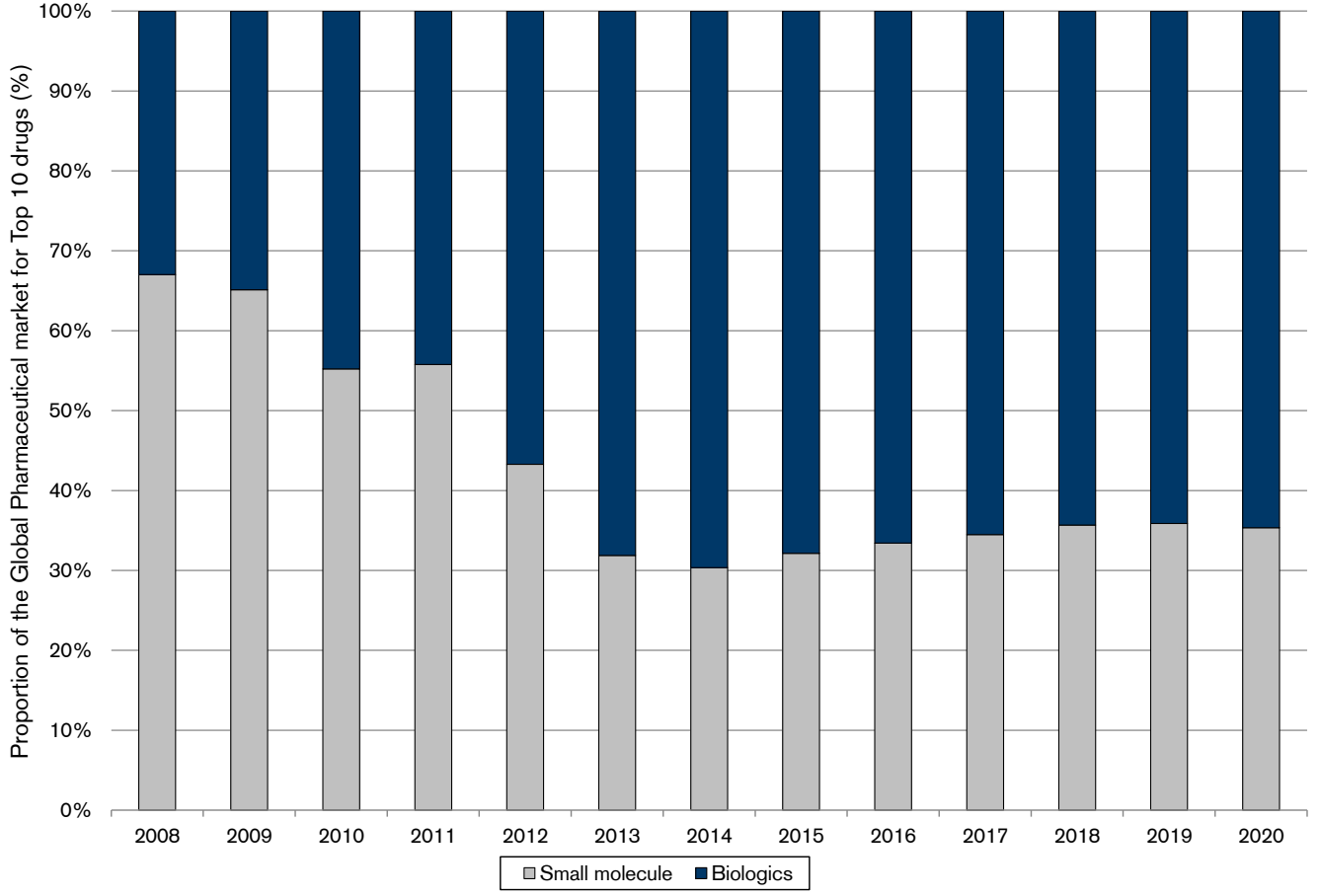
Exhibit 27: **Proportion of Top 10 Drugs in Global Pharmaceutical Market 2008-2020**

CREDIT SUISSE

Proportion of Top 10 Drugs in Global Pharmaceutical Market 2008-2020



Source: Credit Suisse research, Credit Suisse PharmaValues Database

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Worldwide Sales of Top 10 Drugs

2010				2015				2020			
Product	Company	Class	WW Sales	Product	Company	Class	WW Sales	Product	Company	Class	WW Sales
Lipitor	Pfizer	Chiral Chem	11,838	Humira	AbbVie	MAb	13,961	Humira	AbbVie	MAb	15,155
Plavix	Sanofi	Small Molecule	9,148	Enbrel	Amgen/PFE	Fusion prot	8,756	Lantus	Sanofi	Hormone	7,875
Enbrel	Amgen/PFE	Fusion prot	7,014	Harvoni	Gilead	Small Molecule	8,000	Enbrel	Amgen/PFE	Fusion prot	7,549
Humira	AbbVie	MAb	6,737	Lantus	Sanofi	hormone	7,862	Harvoni	Gilead	Small Molecule	7,300
Remicade	JNJ/MRK	MAb	6,436	Herceptin	Roche	MAb	7,796	Ibrutinib	PCYC/JNJ	Small Molecule	6,751
Diovan	Novartis	Small Molecule	6,053	Remicade	JNJ/MRK	MAb	6,667	Januvia/Janumet	Merck	Small Molecule	6,599
Crestor	AstraZeneca	Small Molecule	5,654	Rituxan	Roche	MAb	6,513	Herceptin	Roche	MAb	6,456
Herceptin	Roche	MAb	5,220	Januvia/Janumet	Merck	Small Molecule	6,274	Tecfidera	Biogen	Small Molecule	6,168
Rituxan	Roche	MAb	5,157	Crestor	AstraZeneca	Small Molecule	5,505	Rituxan	Roche	MAb	5,887
Singulair	Merck	Small Molecule	4,987	Revlimid	Celgene	Small Molecule	4,856	Remicade	JNJ/MRK	MAb	5,723
Total	**% Biologic**	**45%**	**68,244**	**Total**	**% Biologic**	**68%**	**76,190**	**Total**	**% Biologic**	**65%**	**75,462**

Source: Credit Suisse research, Credit Suisse PharmaValues Database

Exhibit 29: **The 2012-2018 Biosimilar Land Grab – Originator Sales in the Year Of Patent Expiries**

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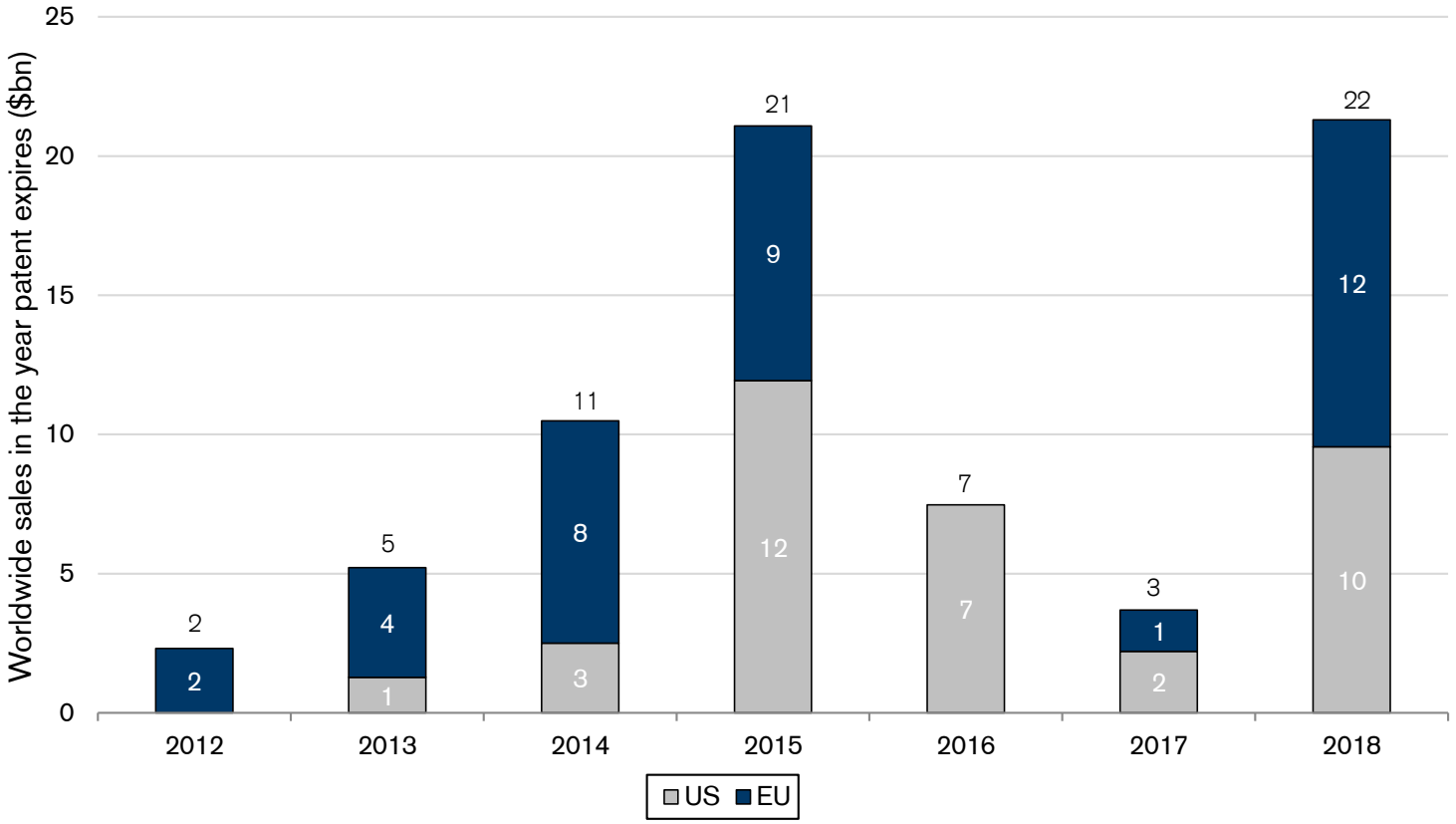
The 2012-2018 Biosimilar Land Grab – Originator Sales in the Year Of Patent Expiries



Source: Credit Suisse research, Credit Suisse PharmaValues Database

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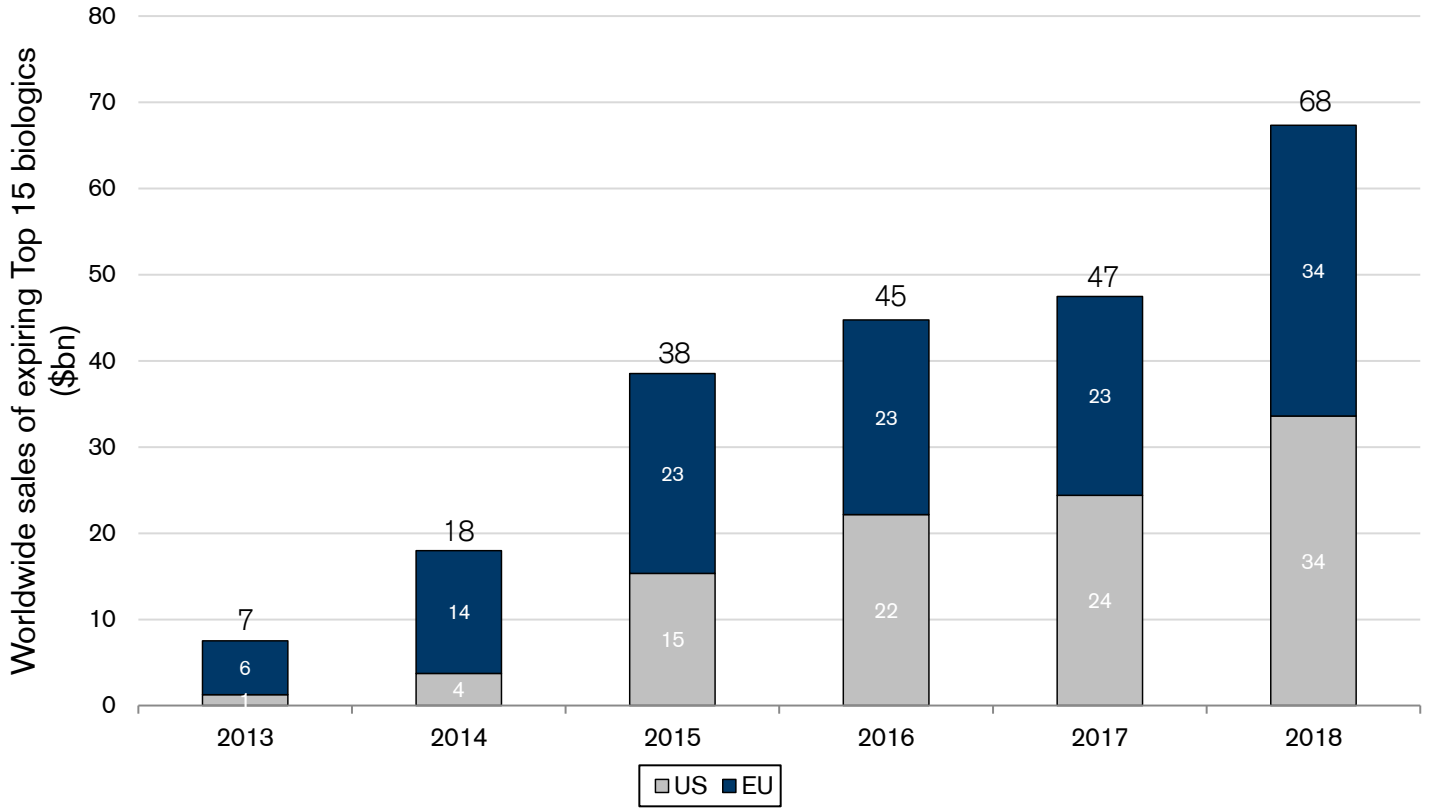
The $70B Near-Term Biosimilars Land Grab – Cumulative (from 2013 base) Worldwide Sales of Expiring Biologics (From Within the Top 15)



Source: Credit Suisse research, Credit Suisse PharmaValues Database

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2012-2018 Biologic Drug Patent Expiries – Anti-TNF's key

	2012	2013	2014	2015	2016	2017	2018
US		Rebif [$1.3B]	Copaxone [$2.5B]	Lantus [$4.6B] Rituxan [$3.6B] Neulasta [$3.4B]	Humira [$7.4B]	NovoLog [$2.2B]	Herceptin [$1.9B] Avastin [$3B] Remicade [$4.6B]
ROW	Avonex [$1.1B] Rebif [$1.2B]	Rituxan [$3.9B]	Herceptin [$4.8B] Remicade [$3.2B]	Enbrel [$4.3B] Lantus [$3B] Neulasta [$0.9B] Copaxone [$0.9B]		NovoLog [$1.5B]	Humira [$7.2B] Avastin [$4.5B]

- The anti-TNF's represent the biggest near term biosimilar opportunity as they make up the largest single component of the global biologics market
- Potentially catalyzed by the Dec 2016 US patent expiry of Humira
- However there is debate around this effective date due to the likely November 18th issuance of the '657 application/'135 patent – expiry 4th Jan 2025

Source: Credit Suisse research, Credit Suisse PharmaValues Database, * For Lantus the patent expires in the US in 2015, but the 30 month stay runs to 2016.

Exhibit 32: **Anti-TNFs Are The Largest Single Component of The Global Biologics Market (2015)**

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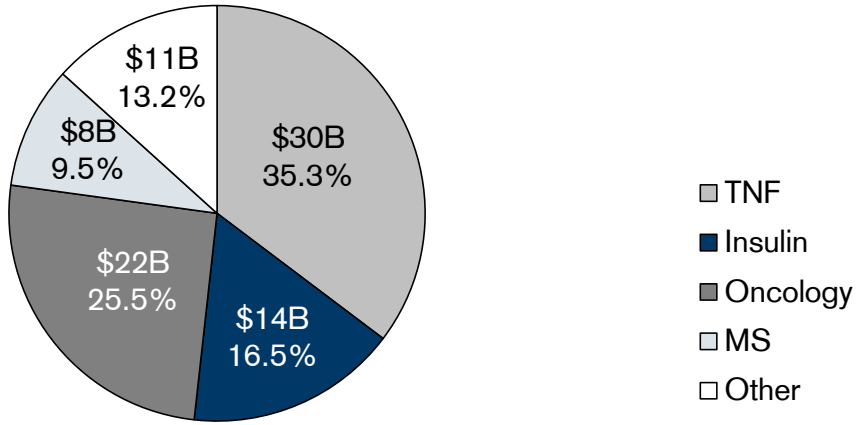
Anti-TNFs Are The Largest Single Component of The Global Biologics Market (2015)



Source: Credit Suisse research, Credit Suisse PharmaValues Database

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Top 15 Biologics by 2013 Worldwide Sales ($ Millions) Page 1/2

Biologic	Company	Indication	MoA	Patent Exp US	Patent Exp EU		2013 Sales	2014 Sales	2015 Sales	2016 Sales	2017 Sales	2018 Sales
Humira	AbbVie	RA	TNF	Dec-16	Apr-18	US	5,236	6,144	6,972	7,472	7,775	7,748
						ROW	5,500	6,225	6,800	7,225	7,375	7,225
						WW	10,736	12,369	13,772	14,697	15,150	14,973
Enbrel	Amgen	RA	TNF	Nov-28	Feb-15	US	4,256	4,625	4,368	4,412	4,412	4,191
						ROW	4,252	4,409	4,346	4,292	4,223	4,146
						WW	8,508	9,034	8,714	8,704	8,635	8,337
Lantus	Sanofi	Diabetes	LA Insulin	Feb-15	May-15	US	4,984	5,500	4,855	4,808	5,208	5,608
						ROW	2,617	2,826	3,006	3,458	3,473	3,414
						WW	7,601	8,326	7,861	8,266	8,681	9,022
Herceptin	Roche	Breast/Gastric Cancer	HER2	Dec-18	Jul-14	US	1,922	1,952	1,952	1,952	1,952	1,952
						ROW	4,615	4,805	4,799	4,596	4,388	4,169
						WW	6,537	6,757	6,751	6,548	6,340	6,121
Avastin	Roche/Genentech	Lung Cancer	VEGF	Jul-18	Jul-18	US	2,760	2,866	2,931	3,011	3,041	2,991
						ROW	4,132	4,211	4,457	4,650	4,567	4,526
						WW	6,892	7,077	7,388	7,661	7,608	7,517
Remicade	MRK/J&J	RA	TNF	Sep-18	Aug-14	US	3,891	4,161	4,434	4,599	4,697	4,609
						ROW	3,004	3,187	3,272	3,221	3,029	2,787
						WW	6,895	7,348	7,706	7,820	7,726	7,396
Rituxan	BIIB	Cancer	CD20	Jan-15	Sep-13	US	3,480	3,540	3,660	3,700	3,655	3,619
						ROW	3,944	4,012	3,939	3,870	3,676	3,450
						WW	7,424	7,552	7,599	7,570	7,331	7,069
Neulasta	Amgen	Neutropaenia	CSF	Oct-15	Feb-15	US	3,499	3,527	3,421	3,147	2,770	2,354
						ROW	893	956	937	890	846	786
						WW	4,392	4,483	4,358	4,037	3,616	3,140

Source: Credit Suisse research, Credit Suisse PharmaValues Database

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Top 15 Biologics by 2013 Worldwide Sales ($ Millions) Page 2/2

Biologic	Company	Indication	MoA	Patent Exp US	Patent Exp EU		2013 Sales	2014 Sales	2015 Sales	2016 Sales	2017 Sales	2018 Sales
Lucentis	Roche/Novartis	Macular Degeneration	VEGF	Jun-20	Jun-22	US	1,820	1,916	2,022	2,123	2,210	2,303
						ROW	2,358	2,446	2,437	2,437	2,437	2,437
						WW	4,178	4,362	4,459	4,560	4,647	4,740
Copaxone	Teva/Sanofi	MS	Immuno-modulator	May-14	Jan-15	US	2,740	2,500	2,300	2,000	1,800	1,620
						ROW	1,045	1,025	860	455	374	300
						WW	3,785	3,525	3,160	2,455	2,174	1,920
Avonex	BIIB/Roche	MS	Interferon beta	Jan-26	Jul-12	US	1,902	1,903	1,845	1,700	1,530	1,300
						ROW	1,105	1,085	975	830	690	550
						WW	3,007	2,988	2,820	2,530	2,220	1,850
NovoLog/ NovoRapid	Novo	Diabetes	SA Insulin	Jan-17	Jan-17	US	1,771	1,895	2,066	2,210	2,210	2,210
						ROW	1,227	1,303	1,300	1,417	1,480	1550
						WW	2,998	3,198	3,366	3,627	3,690	3,760
Rebif	MRK-KGA	MS	Interferon beta	Dec-13	Feb-12	US	1,272	1,240	1,115	1,050	985	907
						ROW	1,208	1,163	1,064	975	900	830
						WW	2,480	2,403	2,179	2,025	1,885	1,737
Advate	Baxter	Haemophilia	Factor 8			US	1,100	1,140	1,178	1,198	1,200	1,200
						ROW	1,260	1,340	1,375	1,410	1,440	1,470
						WW	2,360	2,480	2,553	2,608	2,640	2,670
Victoza	Novo	Diabetes	GLP-1 analogue	Jun-22	Jul-22	US	1,341	1,583	1,867	2,054	2,157	2,265
						ROW	730	862	992	1,085	1,140	1197
						WW	2,071	2,445	2,859	3,139	3,297	3,462

Source: Credit Suisse research, Credit Suisse PharmaValues Database

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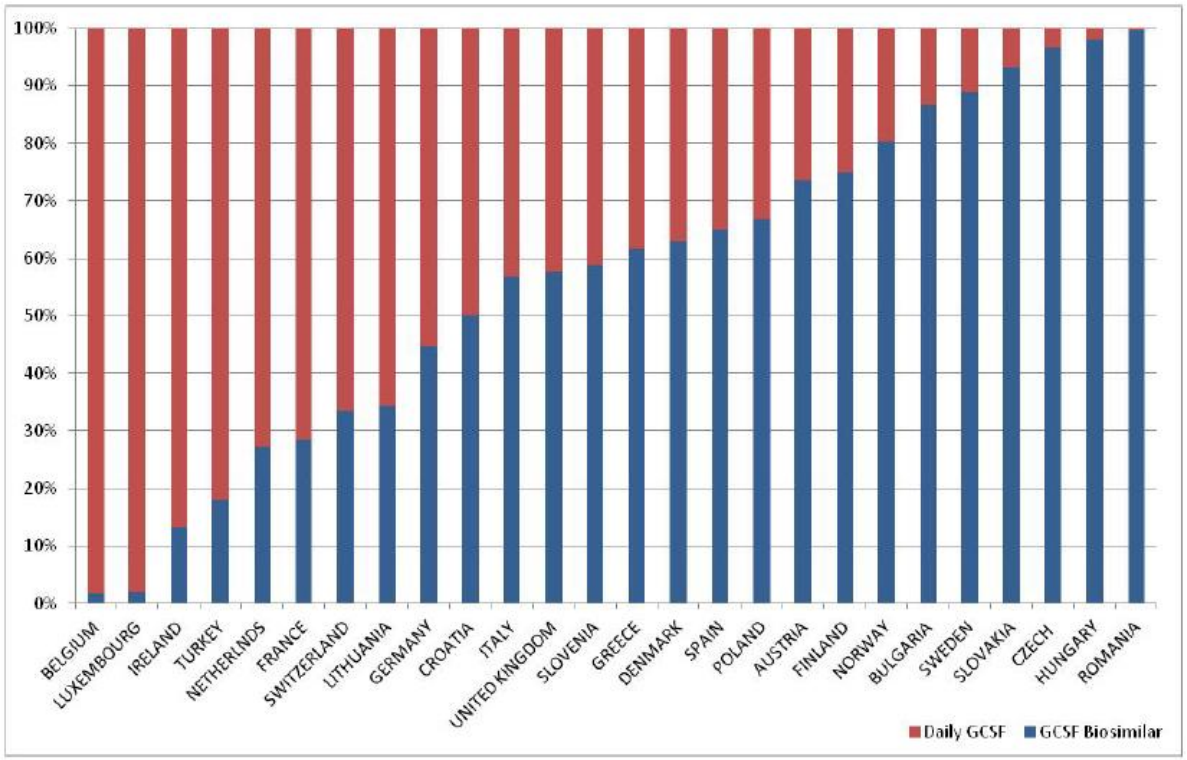
Biosimilar Penetration Rates Likely to be Influenced by Local Healthcare Systems and Access Mechanisms.

Volume uptake of GCSF biosimilars in standard units vs. daily GCSF available market products, %



Source: IMS Health, MIDAS, July 2013 MAT

Sources: IMS, Hospira, Credit Suiss research

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Creation of Regulatory Pathway for Biosimilars in US - Biologics Price Competition and Innovation Act of 2009 (BPCI Act, 2009)

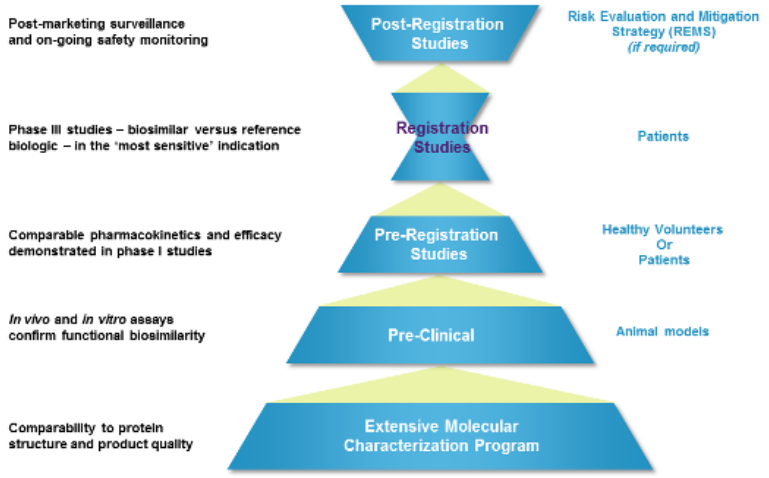
- The FDA issued draft guidance on biosimilar product development in February 2012, the first step in implementing a shortened U.S. regulatory pathway for biosimilars.
- BPCI Act enacted as part of the Affordable Care Act on March 23, 2010.
- BPCI Act amends the Public Health Service Act of 1944 to create a new abbreviated licensure pathway for Biological products shown to be biosimilar to or interchangeable with, an FDA-licensed biological reference product (Section 351(k)).
- Objectives of the BPCI act are conceptually similar to the Drug Price Competition and Patent Term Restoration Act of 1984 (commonly referred to as the "Hatch-Waxman Act"), which established abbreviated pathways for the approval of drug products under the Federal Food, Drug and Cosmetic Act (FD&C Act).
- A sponsor may apply for approval for a "biosimilar" under new section 351(k) of the PHS Act.
- Section 351(k) of the PHS Act (42 U.S.C. 262 (k)), added by the BPCI Act, sets forth the requirements for an application for a proposed biosimilar product and an application or a supplement for a proposed interchangeable product.
- A 351(k) application must contain: (1) information demonstrating that the biological product is biosimilar to a reference product based upon data derived from analytical, animal and clinical studies, or (2) to meet interchangeability standard, an applicant must provide sufficient information to demonstrate biosimilarity, same clinical outcome in any given patient as reference product, and same risk and efficacy as reference product.

Sources: Credit Suiss research

Creation of Regulatory Pathway for Biosimilars in US - Biologics Price Competition and Innovation Act of 2009 (BPCI Act, 2009)

- The BPCI Act aligns with the FDA's longstanding policy of permitting appropriate reliance on what is already known about a drug, thereby saving time and resources and avoiding unnecessary duplication of human or animal testing.
- Biosimilars are approved via a stringent regulatory pathway following the loss of exclusivity of their originator reference products.
- To be approved by FDA, biosimilars must:
  - Exhibit the **identical primary AA sequence** as the reference biologic.
  - Provide an **extensive comparison** of physicochemical and functional characteristics of the biosimilar to the reference product.
  - Demonstrate **comparable quality, safety, and efficacy** in head-to-head pre-clinical and clinical trials.

- Biosimilarity is defined "that the biological product is highly similar to the reference product notwithstanding minor differences in clinically inactive components" and "that there are no clinically meaningful differences between the biological product and the reference product in terms of the safety, purity, and potency of the product".



Sources: Credit Suiss research, Hospira

Branded Biosimilars vs. Interchangeables?

The new FDA rules create a two tiered system with biosimilars either being classified into "branded biosimilars" or "interchangeable".

1. **Branded biosimilars** are approved as biosimilar to a reference biologic, meaning that there are no clinically meaningful differences between the two products. However, biologics cannot be substituted for a biosimilar by a pharmacist without a physician's permission. Branded biosimilars will therefore require extensive marketing costs to educate both physicians and consumers about the benefits of switching to the biosimilar along with alleviating concerns on the safety, purity and potency of the product.
2. **Interchangeable** takes the biosimilar one step further by allowing automatic substitution between a biologic and the interchangeable biosimilar without the need for physician permission. While the interchangeable biosimilar will allow for lower marketing costs and much faster penetration, getting a biosimilar approved as an interchangeable naturally entails more advanced scientific methods and higher development costs. Interchangeable products may be substituted for reference product without the intervention from the prescribing healthcare provider.

Sources: Credit Suiss research

BPCI Act Protect Original Product

- The BPCI Act specifics in regards to protecting the original product:
  - A 12-year exclusivity period from date of first licensure of the reference product, during which approval of a 351(k) application referencing that product may not be made effective. In addition, 351(k) application may not be submitted to FDA for review until 4 years after the date of first licensure of the reference product.
  - A 4-year exclusivity period from the date of first licensure of the reference product, during which a 351(k) application referencing that product may not be submitted,
  - An exclusivity period for the first biological product determined to be interchangeable with the reference product for any condition of use, during which a second or subsequent biological product may not be determined interchangeable with that reference product,
  - A transition provision for biological products that have been or will be approved under section 505 of the FD&C Act (21 U.S.C. 355) before March 23, 2020,
  - An exclusivity period for certain biological products for which pediatric studies are conducted in accordance with a written request,
  - A provision stating that a 351(k) application for a biosimilar product contains a “new active ingredient” for purposes of the Pediatric Research Equity Act (PREA).

Sources: Credit Suiss research

CREDIT SUISSE

A Comparative Analytical Characterization By The Agency Could Lead To One Of Four Assessments:

(1) **Not similar** – Further development through the 351(k) regulatory pathway is not recommended unless modifications are made to the manufacturing process

(2) **Similar** – Additional information is needed to determine if the product is highly similar to the reference product. Additional analytical data and studies are required to determine if the observed differences fall within acceptable range and are not pertinent to clinical outcomes.

(3) **Highly similar** – The proposed biosimilar product meets the statutory standard for analytical similarity and the results of the analytical studies provide high confidence in the analytical similarity between proposed biosimilar and the reference product. The proposal would be to complete selective and targeted animal and/or clinical studies to resolve residual uncertainty

(4) **Highly similar with fingerprint-like similarity** – this represents the "gold standard" of similarities. The proposed biosimilar meets the statutory standard for analytical similarity based on the integrated, multi faceted and complementary approaches that are designed to identify highly sensitive analytical differences.

Sources: Credit Suiss research

Exhibit 41: **The Key Issues Decided By The BPCI Act And Their Impact On Biosimilar And Biotech Companies**

CREDIT SUISSE

The Key Issues Decided By The BPCI Act And Their Impact On Biosimilar And Biotech Companies

Sources: Credit Suiss research

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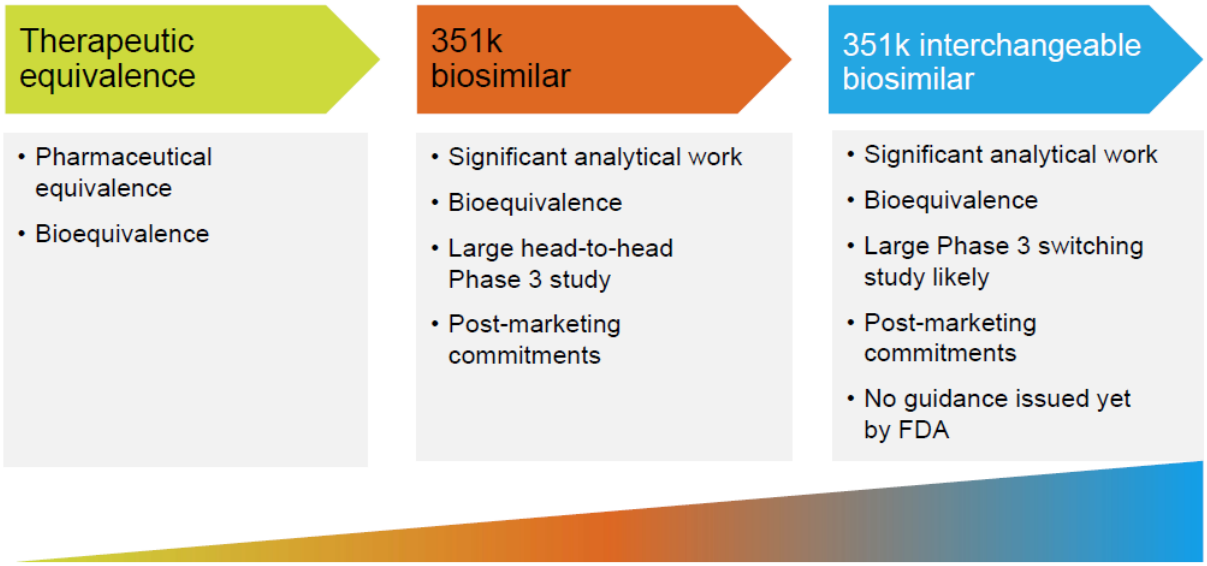
US Regulatory Pathway For Interchangeables More Complex and Expensive

Various FDA pathway considerations:

Biosimilar development can take different regulatory paths



Sources: Hospira, Credit Suiss research

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Exhibit 43: **Successful Biosimilar Commercialization Requires Across The Board Efforts**

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Successful Biosimilar Commercialization Requires Across The Board Efforts

Prescribers	• Prescribers need to be educated on rigor of data generation and data package • Physicians need to be confident to prescribe
Payers / Budget Owners	• Payers need to understand cost savings and how to contract
Regulators / Policy Makers	• Government policies needed to support biosimilar uptake and market formation • Need for clear direction for U.S. on pharmacy substitution

Sources: Hospira, Credit Suiss research

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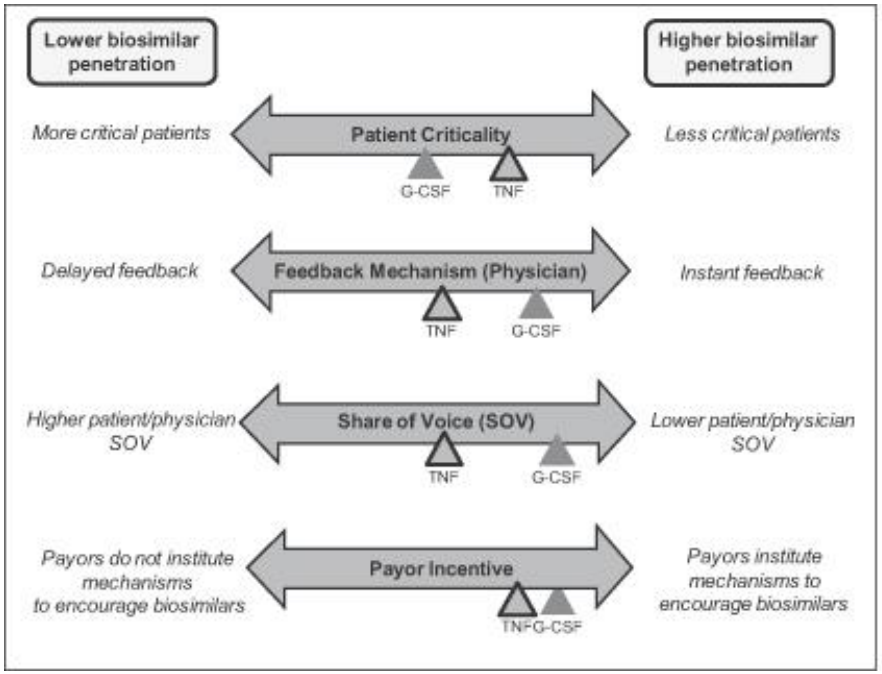
CREDIT SUISSE

Payers Will Be An Important Driver Of Adoption, Given The Significant Benefits That Could Be Achieved From Biosimilar Adoption



Biosimilar Penetration

G-CSF: Potential Biosimilar Adoption Factors

- Hospital-based acute therapy
- Little patient/physician share of voice (SOV)
- No life cycle management play

TNF: Potential Biosimilar Adoption Factors

- Low patient criticality
- Moderate patient/physician share of voice
- No life cycle management play

- There is significant variability regarding the level of physician and patient pushback towards adoption of Biosimilars depending on the therapeutics class.
- The anti-TNF space is one in which physician and patient pushback is neutral to positive towards driving Biosimilar adoption.
- Payers though have a huge incentive to drive significant adoption of Biosimilars.

Sources: Coherus, Credit Suisse research

Exhibit 45: **The Development Of Biosimilars Is Very Different From That Of Innovative Biologics, As The Vast Majority Of The Risk Can Be Mitigated With A Small Minority Of The Cost**

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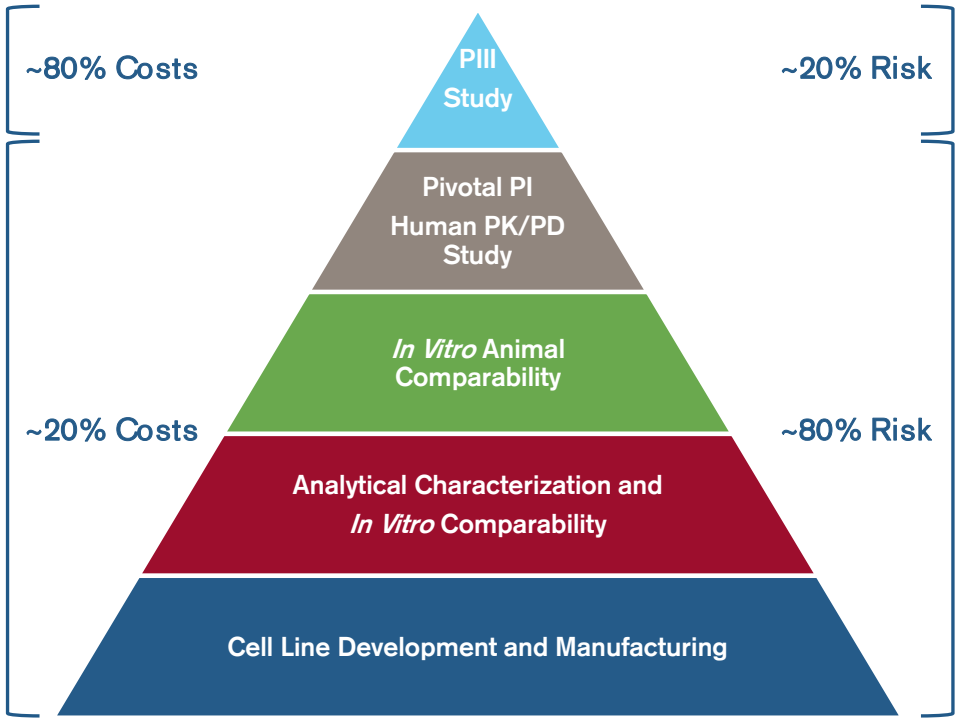
The Development Of Biosimilars Is Very Different From That Of Innovative Biologics, As The Vast Majority Of The Risk Can Be Mitigated With A Small Minority Of The Cost



- The development of Biosimilars is very different from the development of Innovative Biologics.
  1) The vast majority of the risk in developing Biosimilar is "front-loaded".
  2) However, ~80% of the risk can be mitigated with just ~20% of the expenditures.

Sources: Coherus, Credit Suisse research

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Exhibit 46: **Not All Biologics Are Of Equal Complexity; Biosimilar Acceptance Rates Likely To Differ Depending On Therapeutic Area**

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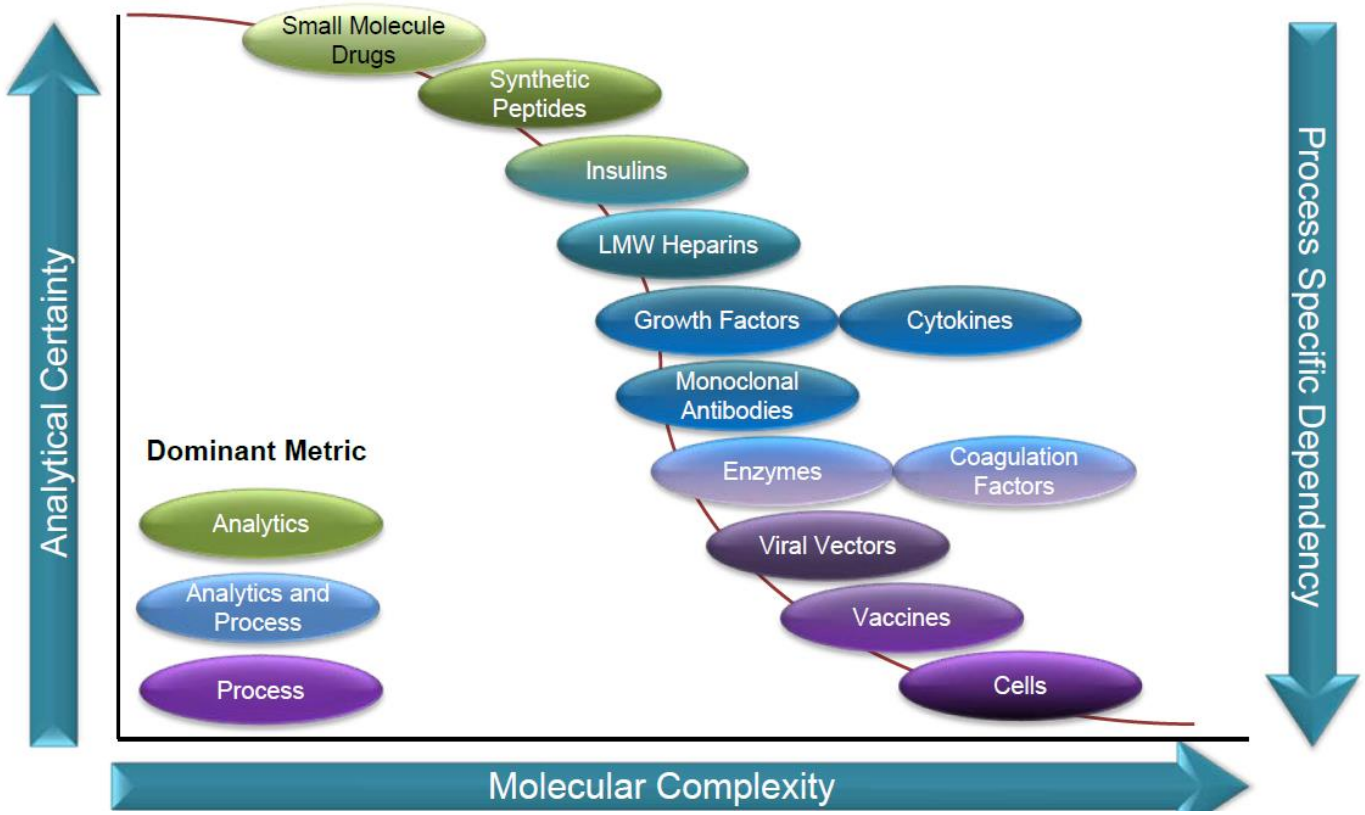
Not All Biologics Are Of Equal Complexity; Biosimilar Acceptance Rates Likely To Differ Depending On Therapeutic Area



Sources: Genzyme

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What Makes Coherus Such An Interesting Company

- Relatively young company (formed in 2010) but very seasoned/experienced and "fit-for-purpose" management team.
- "Clean sheet of paper" biosimilars business model…
- …both "horizontal" and "vertical" biosimilars business model.
- Very strong analytics – this is and "art form" vs. science per se.
- PIII – Biosimilar Humira, PII Biosimilar Enbrel and Neulasta as lead projects.
- Strong initial marketing partnerships but rights retained for key markets.
- One of the very few biosimilar pure play's - attractive to investors and pharma/biotech.

Sources: Credit Suisse research

Coherus Management

- Led by Veteran Leadership with 25+ years of experience in Biopharma:
  - **Denny Lanfear**, President and CEO
  - **George Montgomery**, CFO
  - **Doug Farrar**, CTO
  - **Alan Herman**, PhD, CSO
  - **Barbara Finck**, MD, CMO
  - **Ann Lowe**, MD, SVP, Oncology
  - **Bryan Lawlis**, PhD, Chairman, SAB
  - **Peter Watler**, PhD, SVP, Process Science

- Collaborators:
  - **Baxter International Inc.**
  - **Daiichi Sankyo Company**

Sources: Credit Suisse research, Coherus Biosciences

Exhibit 49: **Coherus Pipeline**

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Coherus Pipeline

Candidate	Originator product	Originator approved indications	PC	PI	PIII	Status/anticipated milestones	Coherus commercial rights
CHS-0214 [Anti-TNF]	Enbrel	• Ankylosing spondylitis • Juvenile idiopathic arthritis • Psoriasis • Psoriatic Arthritis • Rheumatoid Arthritis	→	→	→	• Phase 3 clinical trials in RA and PsO in progress • File MAA in EU in 2016	US (EU = royalty from Baxter: Japan royalty from Daiichi-Sankyo)
CHS-1420 [Anti-TNF]	Humira	• Ankylosing spondylitis • Behcet's disease • Crohn's disease • Juvenile idiopathic arthritis • Psoriasis • Psoriatic Arthritis • Rheumatoid Arthritis • Ulcerative colitis	→	→	→	• Phase 1 study completed • Initiate Phase 3 clinical trials in 2015 • File BLA in US in 2016	WW
CHS-1701 [long-acting G-CSF]	Neulasta	• Febrile neutropenia	→	→		• Phase 1 (351(a)) completed • Initiate Phase 3 clinical trials in 2015 • File BLA in US in 2016	WW

Sources: Credit Suisse research, Coherus Biosciences

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Exhibit 50: **Coherus Has Been Highly Successfully In Reproducing The Pharmacokinetic Profiles Among Other Characteristics For Its Enbrel And Humira Biosimilars**

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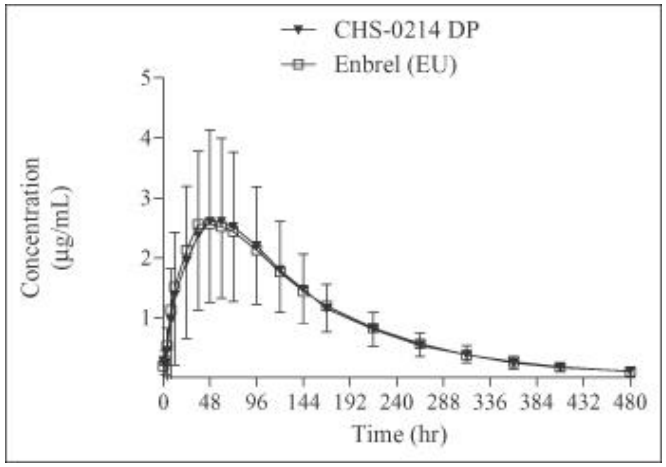
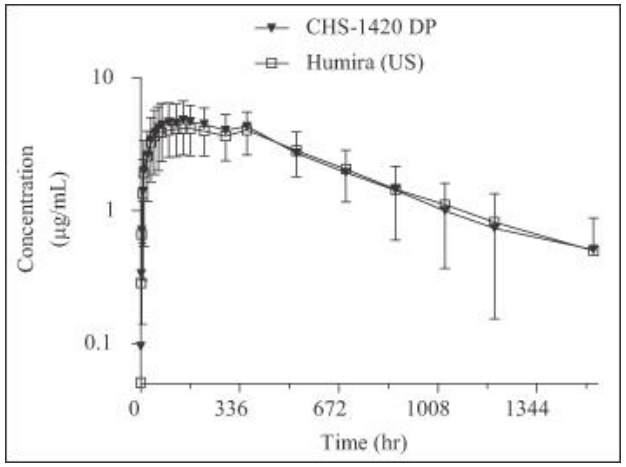
Coherus Has Been Highly Successfully In Reproducing The Pharmacokinetic Profiles Among Other Characteristics For Its Enbrel And Humira Biosimilars





- Matching all the relevant characteristics of the Innovative Biologic will be an important step in derisking the Biosimilar heading into PIII clinical trials.

- The graphs above show that CHS-0214 and CHS-1420 match the PK profiles of Enbrel and Humira respectively very well, indicating that the amount of drug delivered into the blood is similar between the Biosimilar and Innovative Biologic.

Sources: Coherus, Credit Suisse research

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Biosimilars Of Etanercept/Enbrel Clinical Trial Details

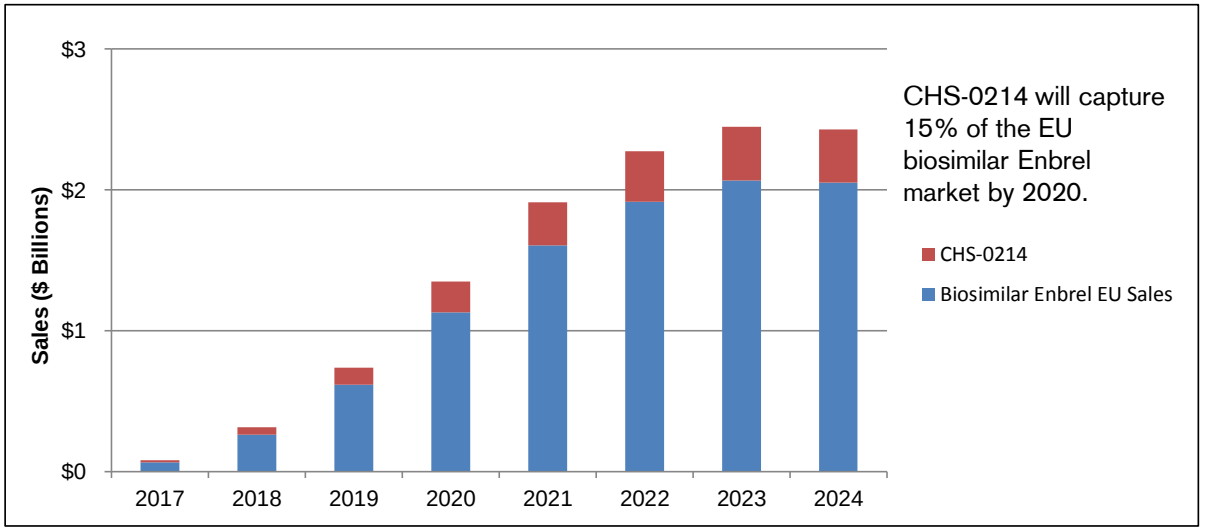
Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Coherus Biosciences Inc.	CHS-0214 (25mg)	RA, PsO	PIII	486 (RA) 424 (PsO)	USA. RA: Two part study: 1. part- W24, CHS-0214 vs. Enbrel, primary endpoint is 20% improvement in ACR (ACR-20) at W24, efficacy and safety. 2. part, open label, patients with at least ACR-20 response receive CHS-0214, continued response and safety measurement. Compl: 2H'15 PsO: Primary efficacy endpoint is based on % improvement in the Psoriasis Area and Severity Index (PASI) at 12 weeks. Compl: 2H'15.
Coherus Biosciences Inc.	CHS-0214 (25mg)	Healthy	PI	-	USA. CHS-0214 vs. Enbrel. Pharmacokinetic study.

Milestones

Product	2014	2015	2016	2017
CHS-0214 [Anti-TNF]		PIII (PsO and RA) Data Readout	U.S./EU Filing	U.S./EU Approval
CHS-1420 [Anti-TNF]	Completed PI	Initiate PIII	PIII Data Readout U.S./EU Filing	U.S./EU Approval

Sources: Credit Suisse research, clinicaltrials.gov

CHS-0214 (Biosimilar Enbrel) WW Sales



	2017	2018	2019	2020	2021	2022	2023	2024
Biosimilar Enbrel EU Sales	$65,600	$261,088	$616,906	$1,130,433	$1,606,203	$1,916,792	$2,064,755	$2,052,751
CHS-0214	$13,120	$51,565	$120,297	$217,608	$305,179	$359,399	$381,980	$374,627
Total Biosimilar Enbrel Sales	$78,720	$312,653	$737,202	$1,348,042	$1,911,381	$2,276,191	$2,446,735	$2,427,378

Sales in the table above are in thousands.

Sources: Credit Suisse research, Coherus Biosciences

Exhibit 53: **CHS-1420 (Biosimilar Humira) WW Sales**

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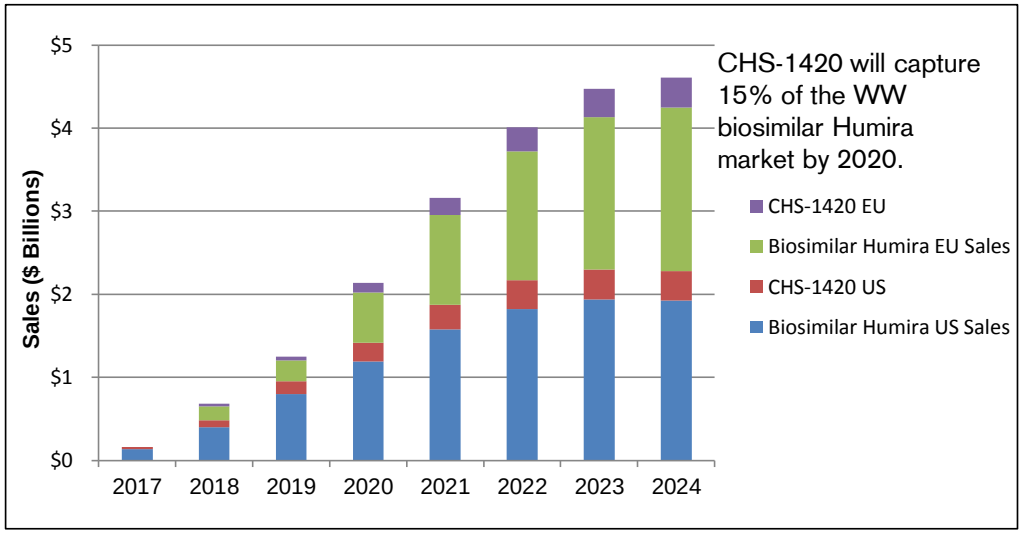
CHS-1420 (Biosimilar Humira) WW Sales



	2017	2018	2019	2020	2021	2022	2023	2024
Biosimilar Humira US Sales	$135,000	$402,300	$799,092	$1,190,211	$1,575,487	$1,824,429	$1,939,840	$1,924,637
CHS-1420 US	$27,000	$79,454	$155,823	$229,116	$299,342	$342,080	$358,870	$351,246
Biosimilar Humira EU Sales	$0	$166,205	$247,363	$599,818	$1,081,590	$1,555,012	$1,833,796	$1,975,372
CHS-1420 EU	$0	$32,825	$48,236	$115,465	$205,502	$291,565	$339,252	$360,505
Total	$162,000	$680,784	$1,250,514	$2,134,609	$3,161,921	$4,013,086	$4,471,759	$4,611,761

Sales in the table above are in thousands.

Sources: Credit Suisse research, Coherus Biosciences

Exhibit 54: **Major Competitors Around The World Developing Biosimilars**

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Major Competitors Around The World Developing Biosimilars

- Sandoz
- Pfizer
- Amgen
- Samsung Bioepis
- Bionovis (Merck Serono)
- LG Life Sciences

Sources: Credit Suisse research

Exhibit 55: **Minor Competitors Around The World Developing Biosimilars**

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Minor Competitors Around The World Developing Biosimilars

- Protalix Biotherapeutics
- Epirus
- Cipla
- BioXpress Therapeutics
- Avesthagen
- Hanwha Chemical
- Daewoong Pharmaceutical
- Momenta Pharmaceuticals
- TSH Biopharm Corporation
- Shangai CP Guojian Pharmaceutical

bioXPRESS THERAPEUTICS SA

AVESTHAGEN

CP Guojian Pharm 中信国健

MOMENTA

Hanwha

EPIRUS BIOPHARMACEUTICALS

PROTALIX Biotherapeutics

Cipla Caring for life

DAEWOONG

Sources: Credit Suisse research, Azevedo et al., 2014

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Exhibit 56: **Biosimilars Of Etanercept/Enbrel**

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Biosimilars Of Etanercept/Enbrel

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Coherus Biosciences Inc.	CHS-0214 (25mg)	RA, PsO	PIII	486 (RA) 424 (PsO)	USA. RA: Two part study: 1. part- W24, CHS-0214 vs. Enbrel, primary endpoint is 20% improvement in ACR (ACR-20) at W24, efficacy and safety. 2. part, open label, patients with at least ACR-20 response receive CHS-0214, continued response and safety measurement. Compl: Dec'15 PsO: Primary efficacy endpoint is based on % improvement in the Psoriasis Area and Severity Index (PASI) at 12 weeks
Coherus Biosciences Inc.	CHS-0214 (25mg)	Healthy	PI	-	USA. CHS-0214 vs. Enbrel. Pharmacokinetic study.
Epirus	BOW050	RA	PC	-	Brazil.
Samsung Bioepis	SB4 (50mg)	RA	III	498	EU. SB4 vs. Enbrel; safety and efficacy. Primary endpoint ACR-20 response criteria at W24. Secondary endpoint: ACR-20 at W52, ACR-50 W24 and W52, disease activity score based on a 28 joint count W24, W52. Compl: 2H'14
Samsung Bioepis	SB4 (50mg)	Healthy	I	138	EU. SB4 vs. Enbrel (EU) and SB4 vs. Enbrel (US); pharmacokinetics, immunogenicity and safety.
Sandoz	GP2015 (50mg)	PsO	III	546	EU. GP2015 vs. Enbrel. Primary efficacy variable is the PASI 75 response rate after W12. Secondary measure is PASI 50, 75 and 90 response rate at W12.
Avesthagen	Avent	RA	PC	-	India. In preclinical studies as of 2012.
BioXpress Therapeutics	BX2922	RA, PoS	PC	-	EU. Pipeline.
Bionovis (Merck Serono)	-	-	-	318	Brazil. Unknown vs. Enbrel.

Sources: Credit Suisse research, clinicaltrials.gov

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Biosimilars Of Etanercept/Enbrel

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Cipla, India	Etacept	RA	-	-	Launched in India in Apr '13.
Hanwha Chemical	HD203 (25mg)	RA	Awaiting Approval	294	South Korea. HD203 submitted to MOFDS in mid July '14 – awaiting approval. Primary endpoint ACR-20 response criteria at W24.
LG Life Sciences	LBEC0101 (25mg)	Healthy	PI complete	36	South Korea. LBEC0101 vs Enbrel. Phase I completed of pharmacokinetic study. Primary endpoint measure is Enbrel levels in blood.
Daewoong Pharmaceutical	DWP422 (25mg)	RA	PI	38	South Korea. DWP422 vs. Enbrel. Pharmacokinetic and safety. Primary endpoint measure is Enbrel levels in blood.
Momenta Pharmaceuticals	M923	RA, PsO, AS	PC	-	EU. Targeting autoimmune and inflammatory indications, biosimilar of either Enbrel or Humira. Baxter collaboration.
TSH Biopharm Corporation	TuNEX/ENIA11 (50mg)	RA/MX	PIII	129	Taiwan. TuNEX vs MTX and Placebo. Safety, efficacy and immunogenicity. Primary endpoint measure is ACR-20 response rate at W24.
Protalix Biotherapeutics	PRX-106	RA	PC	-	Israel. In preclinical studies.
Shangai CP Guojian Pharmaceutical	Etanar/Yisaipu	PsO, RA, AS	approved	-	China. Both copied for market in Colombia.

Sources: Credit Suisse research, clinicaltrials.gov

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Biosimilars Of Adalimumab/Humira

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Sandoz	GP2017 (80mg at week 0, 40 mg at week 1-33)	PsO	PIII	490	USA. GP2017 vs. Humira. The primary outcome measures is the PASI 75 response rate at W16. The secondary measures are PASI response rates at PASI 50, 75, 90 and 100; change in baseline in IGA and health related quality of life.
Amgen	ABP501 (80mg at week1, 40mg week2-52)	PsO	PIII	350	USA. First of the two PIII studies evaluating the efficacy and safety of biosimilar ABP501 compared with Humira The primary endpoint was PASI percent improvement from baseline to W16 of treatment. Safety and immunogenicity of ABP501 were comparable to adalimumab. Patients with a PASI 50 score or greater will remain in the study for up to 52 weeks.
Pfizer	PF-06410293 (40mg)	Healthy	PI	285	USA. PF-06410293 vs. Adalimumab-US vs. Adalimumab-EU. Primary endpoints: Cmax (Time frame D1-D50), AUC (0-2 weeks), AUC extrapolated to infinity. Secondary endpoints are Aes, incidence of ADA and Nab, Cmax, AUC, T1/2, Vz/F, clearance.
Boehringer Ingelheim	BI695501	RA	PIII	600	Estonia. BI695501 vs. US-sources Humira. The primary measure is the change from Baseline in DAS28 (ESR) at W24. The proportion of patients meeting ACR20 response criteria at W24. The secondary measures are change in baseline in DAS28 at W48, proportion of patients meeting ACR-20 response at W48, and AE's.
Oncobiologics Viropro	ONS-3010	Healthy	PI	-	EU. Pharmacokinetic study expected to be complete 4Q14.
Epirus	BOW050	-	PC	-	-
AET BioTech BioXpress Therap	-	-	-	-	pipeline
Fujifilm and Kyowa Hakko Kirin	-	-	-	-	EU. 50:50 joint venture announced 2012. Clinical trials supposed to commence in 2013.

Sources: Credit Suisse research, clinicaltrials.gov

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Biosimilars Of Herceptin (Trastuzumab)

Company	Product	Indication	Phase	Enroll -ment	Country of Trial, Design, Parameters, Estimate completion
Biocon	Herceptin	Cancer	Approved	-	Approved in India in Nov 2013.
Celltrion, Inc.	CT-P06	Metastatic breast cancer and early stage breast cancer with over-expression of HER-2	PIII	383	EU. Study has been completed, under regulatory review currently.
Amgen/Actavis Inc.	ABP980	HER2+ breast cancer	PIII	808	World-wide except USA. A randomized, double blind PIII study evaluating the efficacy and safety of ABP 980 compared with Trastuzumab in subjects with HER2+ early breast cancer. Primary endpoint is determination of pathologic complete response (pCR) defined as the absence of invasive tumor. Secondary endpoints are event-free survival, overall survival, change in LVEF, AEs, and incidence of anti-drug antibody and neutralizing antibody formation.
Pfizer	PF-05280014	Metastatic Breast Cancer	PIII	690	USA. A PIII randomized, double-blind study of PF-05280014 plus Pacilitaxel for the first-line treatment of patients with HER2+ metastatic breast cancer. Primary endpoint is percentage of participants with ORR. Secondary endpoints are DOR, 1 PFS rate, 1 year survival rate, Cmax, Cmin and incidence of ADA.
Biocad	BCD-022	Metastatic Breast Cancer	PIII	206	WW, except USA. International, multicenter, double blind PIII trial comparing safety and efficacy of BCD-022 used with Paclitaxel Herceptin. Primary endpoint is overall response rate. Secondary endpoints are complete response rate, progression rate, AEs, Cmax, Tmax, T1/2.

Sources: Credit Suisse research, clinicaltrials.gov

CREDIT SUISSE

Biosimilars Of Avastin (Bevacizumab)

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Amgen/Actavis Inc.	ABP215	NSCLC	PIII	620	Worldwide except USA. A multi-center, randomized PIII study of ABP215 compared to Bevacizumab in subjects with advanced non-small lung cancer. Primary endpoint was objective response rate in 19 weeks. Secondary endpoints were objective response rate, progression free survival, time and duration to response, Aes, overall survival.
Pfizer	PF-06439535	Cancer	PI complete d	102	USA. Phase I, double blind, randomized, parallel group, single dose, 3 arm, comparative PK study. Primary endpoints were maximum observed plasma concentration (Cmax), AUCtau, AUC 0-8 – area under the plasma concentration versus time curve from time 0 to extrapolated infinite time. Secondary endpoints were systemic clearance, terminal disposition half-life, volume of distribution at steady state, incidence of ADA and Nab.
Celltrion	CT-P16	Rectal Cancer	PC	-	-
Biocon	Biosimilar Avastin	Solid tumors	PC	-	-
Hanwha Chemical	HD201	Breast cancer	PC	-	-

Sources: Credit Suisse research, clinicaltrials.gov

CREDIT SUISSE

Biosimilars Of Remicade (Infliximab)

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Ranbaxy/EPIRUS	Infimab/BOW015	RA	-	-	Approved to be launched in India in 1Q'15. Phase III trial met its primary endpoint and demonstrated comparability to Remicade as measured by ACR20 response. Additional PIII trial is to begin in Europe in 2015.
Celltrion	CT-P13 Inflectra	CD	PIII	214	USA. A double blind, parallel group, PIII study to demonstrate noninferiority in efficacy and to assess safety Primary endpoint is efficacy as evaluated by assessment of CDAI -70 response in 6 weeks.
Amgen	Infliximab biosimilar	Inflammatory disorders	PC	-	-
Pfizer	PF-06438179	RA	PIII	614	USA. A PIII randomized, double-blind study assessing the efficacy and safety of PF-06438179 and infliximab in combination with methotrexate in subjects with moderately to severely active RA who have had an inadequate response to methotrexate. Primary endpoint is number of participants with ACR20 response. Secondary endpoints are number of participants with ACR20, ACR50, ACR70, DAS28-CRP, DAS remission, EULAR response, ACR response, ADA and Nab response, serum drug concentration.

Sources: Credit Suisse research, clinicaltrials.gov

CREDIT SUISSE

Biosimilars Of Rituxan (Rituximab)

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Dr. Reddy's Laboratories	Reditux	Lymphoma, leukemia, RA	Launched in India 2007	-	Reditux is available in Iran, Colombia and Peru. DRL plans to launch in Europe in 2017. DRL plans to launch Reditux in Russia next year.
Sandoz	GP2013	Folicular NHL	PIII	618	WW, except USA. A randomized, controlled, double-blind PIII trial to compare the efficacy, safety and PK of GP2013 vs MabThera in patients with previously untreated, advanced stage follicular lymphoma. Primary endpoint is ORR. Secondary endpoint is percentage of patients with AEs.
Sandoz	GP2013	RA	PI/II	297	WW, except USA. A randomized, double-blind, controlled study to evaluate PK, PD, safety and efficacy of GP2013 and Rituximab in patients with RA refractory or intolerant to Standard DMARDs and up to 3 anti-TNFs. Primary endpoint will compare PKs of GP2013 and rituximab. Secondary endpoint will examine additional PK parameters, PD and efficacy of GP2013 and rituximab, safety and tolerability.
Pfizer	PF-05280586	Low tumor burden follicular lymphoma	PIII	394	USA. A PIII, randomized, double blind study of PF-05280586 versus Rituximab for the first line treatment of patients with CD20+, low tumor burden, follicular lymphoma. Primary endpoint is objective response rate according to revised response criteria for malignant lymphoma. Secondary endpoints are TTF, PFS, CR rate, duration of response, Cmax, Cmin, CD19+ B cell counts and incidence of ADA.
Boehringer Ingelheim	BI695500	RA	PIII	306	USA. A randomized, double-blind, parallel, active comparator trial to obtain measures of efficacy, PK and safety of BI695500 versus Rituximab in patients with moderately to severely active RA. Primary endpoints are AUC0-tz, AUC0-inf, ACR20, DAS28-ESR. Secondary points are AUC0-3636h, Cmax, DAS28-ESR, ACR20, ACR50, ACR70, ACR/EULAR, swollen joint count, and SF-36.

Sources: Credit Suisse research, clinicaltrials.gov

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Biosimilars Of Rituxan (Rituximab) continued

Company	Product	Indica-tion	Phase	Enroll-ment	Country of Trial, Design, Parameters, Estimate completion
Merck & Co	MK-8808	Lymphoma	PI	20	Russia. Phase I study to evaluate the safety, PK and anti-tumor activity of MK-8808 for participants with B-lymphocyte antigen cluster of differentiation 20+ follicular lymphoma who have had no prior chemotherapy. Primary endpoint is number of AEs. Secondary endpoints are Cmax, Cthrough and clinical response.
Celltrion	CT-P10	RA	PI	147	South Korea. An open label, single arm maintenance study to demonstrate long-term efficacy and safety of CT-P10 in patients with RA who were treated with Rituximab. Primary endpoint is efficacy evaluation by ACR criteria and safety evaluation by hypersensitivity monitoring.

Sources: Credit Suisse research, clinicaltrials.gov

Exhibit 64: **Coherus Biosimilar's Program**

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Coherus Biosimilar's Program

Molecule	Originator product	Phase	Originator approved indications	Status/anticipated milestones	Coherus commercial rights
CHS-0214 [Anti-TNF]	Enbrel	PIII	• Ankylosing spondylitis • Juvenile idiopathic arthritis • Psoriasis • Psoriatic Arthritis • Rheumatoid Arthritis	• Phase 3 clinical trials in RA and PsO in progress • File MAA in EU in 2016	US only
CHS-1420 [Anti-TNF]	Humira	PI	• Ankylosing spondylitis • Behcef's disease • Crohn's disease • Juvenile idiopathic arthritis • Psoriasis • Psoriatic Arthritis • Rheumatoid Arthritis • Ulcerative colitis	• Phase 1 study completed • Initiate Phase 3 clinical trials in 2015 • File BLA in US in 2016	WW
CHS-1701 [long-acting G-CSF]	Neulasta	PI	• Febrile neutropenia	• Phase 1 (351(a)) completed • Initiate Phase 3 clinical trials in 2015 • File BLA in US in 2016	WW

Sources: Credit Suisse research, Coherus Biosciences

Exhibit 65: **Sandoz' Biosimilars Program**

CREDIT SUISSE

Sandoz' Biosimilars Program

- One of the strongest biosimilars pipelines in the industry, has over 50% market segment share
- Currently markets biosimilar version of human growth hormone, G-CSF and epoetin-alfa.
- Has started Phase 3 trial for Enbrel biosimilar and now has seven phase 3 trials across five different molecules

Molecule	Phase	Clinical trial	Indication	Status
Adalimumab	PIII	Efficacy and safety of GP2017 and adalimumab (ADACCESS)	Chronic stable plaque psoriasis	Ongoing
Etanercept	PIII	Efficacy and safety of GP2015 and Etanercept (EGALITY)	Chronic stable plaque psoriasis	Chronic stable plaque patient enrollment complete
Rituximab	PIII	GP2013 in the treatment of patients with previously untreated, advanced stage follicular lymphoma (ASSIST)	Rheumatoid arthritis	Ongoing
Epoetin-alfa	PIII (US)	GP2013 in the treatment of RA patients refractory to or intolerant of standard therapy	Rheumatoid arthritis	Ongoing
Epoetin-alfa	PIII (EU)	HX575 Epoetin-alfa subcutaneously in chronic kidney disease (SENSE)	Anemia due to Chronic kidney disease (CDK)	Patient enrollment complete
Filgrastim	PIII (US)	Efficacy and safety of EP2006 and Filgrastim (PIONEER)	Chemotherapy induced febrile neutropenia	Registration
PegFilgrastim	PIII	Efficacy and safety of LA-EP20065 and Peg-Filgrastim (PROTECT)	Chemotherapy induced febrile neutropenia	Completed/Filing Prep

Sources: Credit Suisse research, Sandoz, clinical trials

Exhibit 66: **Pfizer's Biosimilars Program**

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Pfizer's Biosimilars Program

- Pfizer's biosimilars strategy is still evolving

Molecule	Originator product	Phase	Indications	Status/anticipated milestones
PF-05280014	Herceptin	PIII, recruiting	• Metastatic breast cancer	▪ A randomized, double-blind, parallel group, multicenter study to evaluate the efficacy, safety, PK and immunogenicity of PF-05280014 compared to Herceptin
PF-05280586	Rituxan	PIII, recruiting	• Follicular Lymphoma	• Study will compare the safety and effectiveness of PF-05280586 versus rituximab-EU in patients with CD20+. The primary endpoint will be measured by the Objective Response Rate.
PF-06438179	Remicade	PIII, recruiting	• RA	• Study will asses the efficacy and safety of PF-06438179 and infliximab in combination with methotrexate in subjects with active RA. Primary endpoint is number of participants with ACR20.
PF-06439535	Avastin	PI, completed	• Cancer	• The PI double-blind, randomized, parallel-group, single dose, 3-arm study is to designed to establish PK of PF-06439535 and similarity to Avastin.

Sources: Credit Suisse research, clinical trials, Pfizer

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Exhibit 67: **Amgen's Biosimilars Program**

CREDIT SUISSE

Amgen's Biosimilars Program

- Amgen has strong biologics experience and flexible Actavis partnership
- Company is planning five launches 2017-2019

Molecule	Originator product	Phase	Indications	Status
ABP501	Humira	PIII	Pso and RA	▪ Phase III in Pso met its primary endpoint ▪ PIII in RA ongoing
ABP980	Herceptin	PIII, recruiting	Breast cancer	▪ Efficacy and safety study of ABP980 compared with trastuzumab in subjects with HER2+ early breast cancer
ABP215	Avastin	PIII, recruiting	NSCLC	▪ A randomized, duble-blind, PIII study evaluating efficacy and safety of ABP215 compared with Bevacizumab in subjects with advanced NSCLC
ABP798	Rituxan	Clinical ready	-	▪ -
ABP494	Remicade	Clinical ready	-	▪ -
ABP494	Erbitux	Disovery	-	▪ -
Molecules 7-9	-	Discovery		▪ -

Sources: Credit Suisse research, Amgen, clinical trials

Merck's Biosimilars Program

Molecule	Originator product	Phase	Indications	Status
MK-4214	Neupogen	PIII	Breast cancer	▪ -
MK-6302	Neulasta	-	-	▪ -
MK-8808	Rituxan	PI, ongoing	Follicular Lymphoma	▪ Study will evaluate the safety, PK, and anti-tumor activity of MK-8808 in combination of cyclophosphamide, vincristine and prednisolone, and as a single agent, for participants with B-lymphocyte antigen cluster of differentiation 20
MK-8808	Rituxan	PI, completed	RA	▪ A study of the overall safety, tolerability, and PK of MK-8808 versus rituximab. Primary endpoint is AUC_{0-84}, AEs.
MK-1263	Insuline glargine	PIII	Diabetes	▪ -
MK8953	Enbrel	PIII	RA	▪ -

Sources: Credit Suisse research, Clinical trials, Merck

Exhibit 69: **Samsung Bioepis Biosimilars Program**

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Samsung Bioepis Biosimilars Program

- Strong biosimilar initiative
- Collaborations with BIIB and MRK

Molecule	Originator	Phase	Indications	Status
SB2	Infliximab	PIII, ongoing	RA	▪ A randomized, double-blind, parallel group, multicenter study to evaluate the efficacy, safety, PK and immunogenicity of SB2 compared to Remicade
SB4	Etanercept	PIII, ongoing	RA	▪ A randomized, double-blind, parallel group, multicenter study to evaluate the efficacy, safety, PK and immunogenicity of SB4 compared to Enbrel
SB3	Trastuzumab	PIII, recruiting	Breast cancer	▪ A randomized, double-blind, parallel group, multicenter study to compare the efficacy, safety, PK and immunogenicity between SB3 and Herceptin in newly diagnosed HER2+
SB5	Adalimumab	PIII, recruiting	RA	▪ A randomized, double-blind, parallel group, multicenter study, to evaluate the efficacy, safety, tolerability, PK and immunogenecity of SB5 compared to Humira

Sources: Credit Suisse research, Samsung, Clinical trials

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Exhibit 70: **Celltrion's Biosimilars Program**

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Celltrion Biosimilars Program

Molecule	Originator product	Indication	Phase	Status
CT-P13	Remicade	• Ankylosing spondylitis • Rheumatoid Arthritis • Crohn's Disease	PI PIII PIII, ongoing	▪ Studies in Ankylosing spondylitis and RA are completed. A randomized, double-blind, parallel-group, PIII study will evaluate noninferiority in efficacy and to assess safety of CT-P13 compared to remicade in patients with CD.
CT-P06	Herceptin	• HER2+ Breast cancer	PIII	▪ PIII study to start recruitment with a goal to determine efficacy and safety study of CT-P6 and Herceptin as neoadjuvant and adjuvant treatment in HER2+ patients
CT-P10	Rituxan	• Follicular lymphoma	PIII	▪ A PIII, randomized, parallel-group, active-controlled, double-blind study to compare efficacy and safety between CT-P10 and Rituxan in patients with low tumour burden follicular lymphoma. Primary endpoint is ORR.
CT-P05	Etanercept	• Respiratory disease	PC	▪ A randomized, double-blind, parallel group, multicenter study, to evaluate the efficacy, safety, tolerability, PK and immunogenecity of SB5 compared to Humira
CT-P15	Cetuximab	• Colorectal cancer	Discov.	-
CT-P14	Palivizumab	• Respiratory disease	Discov	-
CT-P17	Adalimumab	• Rheumatoid Arthritis	Discov	-
CT-P16	Bevacizumab	• Rectal cancer	Discov	-

Sources: Credit Suisse research, clinical trials

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Exhibit 71: **Coherus Revenue Model**

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Coherus Revenue Model

Coherus Annual Income Statement											
(Dollars in '000s, except per share amounts)	2012A	2013A	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E
CH-1420	0	0	0	0	0	37,800	138,429	254,668	417,977	599,374	738,550
CH-0214	0	0	0	0	0	1,574	6,188	14,436	26,113	36,621	43,128
Collaboration and license revenue — related party	1,899	2,025	2,025	2,025	2,025	0	0	0	0	0	0
Collaboration and license revenue	0	726	35,096	14,178	116,000	85,000	0	0	0	0	0
Total Revenues	**1,899**	**2,751**	**37,121**	**16,203**	**118,025**	**124,374**	**144,617**	**269,103**	**444,090**	**635,995**	**781,678**

- Our Coherus' revenue consists of the following:
  - Sales attributed to CHS-1420 and CHS-0214
  - Collaboration revenue from Daiichi Sankyo, Milestone payments and Baxter upfront payment
  - Approval for all indications as originator
  - Launch for CH-0214 (Biosimilar Enbrel) in 2016 and CH-1420 (Biosimilar Humira) in 2017
  - Includes 12% royalty from Baxter/Daiichi Sankyo
  - 20% discount pricing

Sources: Credit Suisse research, Coherus Biosciences

Risk Factors

- **CHS-0214 and/or CHS-1420 is not approved or significantly delayed.**
  - Coherus is heavily dependent on the success of their lead compounds, CHS-0214 and/or CHS-1420 . If CHS-0214 and/or CHS-1420 is commercialized later than anticipated or fails to obtain regulatory approval for CHS-0214 and/or CHS-1420 , then its business could be materially harmed.

- **CHS-0214 and/or CHS-1420 does not demonstrate efficacy and/or safety expected from data on studies to date.**
  - Our assumptions are based on expectations regarding CHS-0214 and/or CHS-1420 's efficacy and/or safety. If CHS-0214 and/or CHS-1420 is shown to be less efficacious and/or safe than is expected, then our sales estimates for CHS-0214 and/or CHS-1420 could fall short of our expectations.

- **CHS-0214 and/or CHS-1420 could underperform our expectations for the product launch ramp and/or peak sales.**
  - In modeling CHS-0214 and/or CHS-1420 sales, we have developed a model in an attempt to forecast the launch trajectory and peak sales. However, if any of the following parameters (i.e. pricing, treatment rate, competitive landscape, biosimilar adoption) are worse than our expectations, then our sales estimates for CHS-0214 and/or CHS-1420 could be too high.

- **The biosimilar market may not become as large as expected**
  - We currently have projected a particular size of the biosimilar market based on a patient-driven model. If the number of projected patients seeking treatment with biosimilars is lower than projected, then the total biosimilar market could be significantly lower than forecast.

CREDIT SUISSE

Valuation Methodology

- **Our DCF-derived TP of $22 assumes:**
  - CHS1420 (Humira biosimilar) is launched in the US and EU in 2017 and 2018 respectively.
  - We model worldwide CH-1420 peak sales of ~$820M in 2024.
  - CHS-0214 (Enbrel biosimilar) is launched ex-US in 2017.
  - We assume a 12% royalty rate and model peak ex-US royalties of $45M from Baxter and Daiichi Sankyo.
- **We risk weight our cash flows by 50%.**
- **We do not assign a terminal value and we have not included Coherus' other pipeline in our DCF.**
- **Given the high regulatory uncertainty surrounding biosimilar approvals as well as potential patent related litigation, CHRS is a high-risk investment.**

Sources: Credit Suisse research

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Companies Mentioned *(Price as of 01-Dec-2014)*

AbbVie Inc. (ABBV.N, $69.11, OUTPERFORM, TP $68.0)
Amgen Inc. (AMGN.OQ, $166.41, NEUTRAL, TP $160.0)
Baxter International Inc. (BAX.N, $72.87, OUTPERFORM, TP $77.0)
Biogen Idec (BIIB.OQ, $308.44, OUTPERFORM, TP $400.0)
Boehringer Ingelheim (Unlisted)
Celgene Corp. (CELG.OQ, $113.43, OUTPERFORM, TP $125.0)
Cipla Limited (CIPL.BO, Rs643.05, NEUTRAL, TP Rs585.0)
Coherus Biosciences (CHRS.OQ, $13.37, OUTPERFORM[V], TP $22.0)
EPIRUS (EPRS.OQ, $5.1)
Gilead Sciences Inc. (GILD.OQ, $100.55, OUTPERFORM, TP $130.0)
Hospira Inc (HSP.N, $59.94)
Johnson & Johnson (JNJ.N, $108.03, NEUTRAL, TP $110.0)
Merck KGaA (MRCG.DE, €80.08, NEUTRAL, TP €81.0)
Momenta Pharm (MNTA.OQ, $11.8)
Novartis (NOVN.VX, SFr93.15, OUTPERFORM, TP SFr95.0)
Pfizer (PFE.N, $31.26, OUTPERFORM, TP $34.0)
Sanofi (SASY.PA, €78.38, OUTPERFORM, TP €81.0)

Disclosure Appendix

Important Global Disclosures

Ravi Mehrotra PhD, Jason Kantor, PhD and Jeremiah Shepard, PhD each certify, with respect to the companies or securities that the individual analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

3-Year Price and Rating History for AbbVie Inc. (ABBV.N)

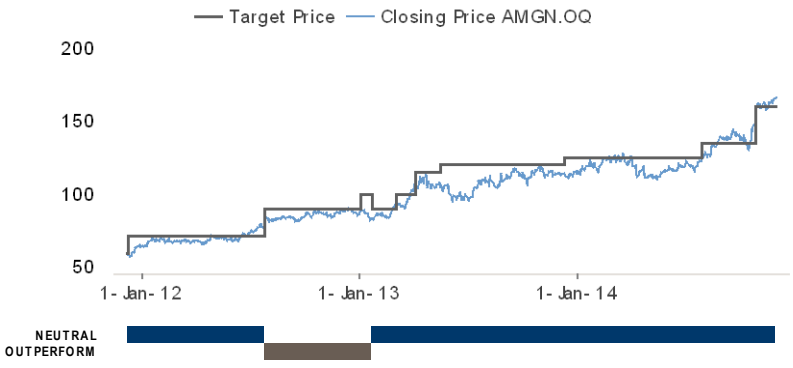
ABBV.N	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
07-Feb-13	36.42	37.00	N *
22-May-13	46.76		NR
08-Oct-13	44.52	54.00	O *
16-Dec-13	53.37	58.00	
19-Jun-14	54.19	60.00	
05-Aug-14	52.79	63.00	
16-Oct-14	52.90	60.00	
02-Nov-14	63.46	68.00	

** Asterisk signifies initiation or assumption of coverage.*

3-Year Price and Rating History for Amgen Inc. (AMGN.OQ)

AMGN.OQ	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
08-Dec-11	58.41	59.00	N
09-Dec-11	58.59	71.00	
25-Jul-12	77.96	85.00	O
26-Jul-12	79.30	90.00	
03-Jan-13	88.59	100.00	
22-Jan-13	83.29	90.00	N
04-Mar-13	92.73	100.00	
04-Apr-13	105.90	115.00	
17-May-13	105.63	120.00	
10-Dec-13	114.10	125.00	
30-Jul-14	130.01	135.00	
28-Oct-14	157.19	160.00	

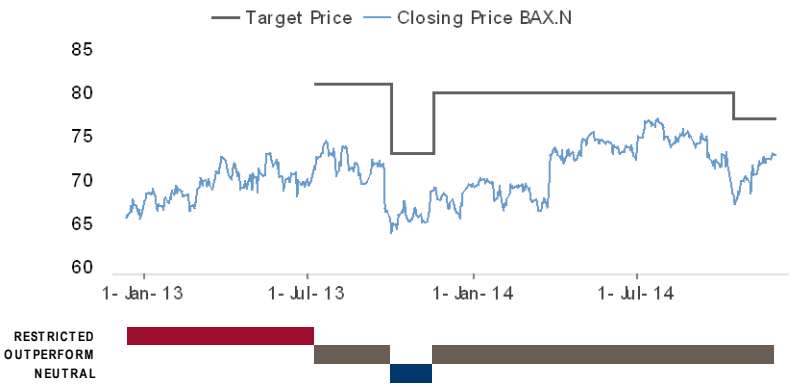
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Baxter International Inc. (BAX.N)

BAX.N	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
13-Dec-12	65.66		R
10-Jul-13	71.32	81.00	O *
02-Oct-13	63.89	73.00	N
18-Nov-13	68.82	80.00	O
16-Oct-14	68.18	77.00	

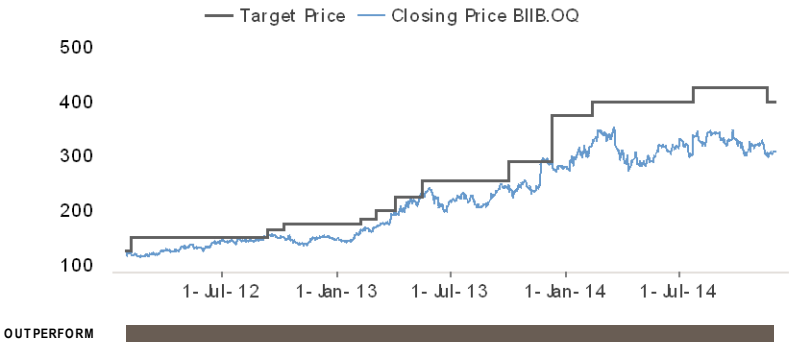
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Biogen Idec (BIIB.OQ)

BIIB.OQ	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
31-Jan-12	117.92	126.00	O
08-Feb-12	119.60	150.00	
12-Sep-12	152.26	165.00	
08-Oct-12	151.22	175.00	
08-Feb-13	164.44	185.00	
04-Mar-13	169.96	200.00	
04-Apr-13	195.68	225.00	
17-May-13	226.85	255.00	
02-Oct-13	246.23	290.00	
10-Dec-13	285.23	375.00	
13-Feb-14	328.62	400.00	
23-Jul-14	337.60	425.00	
19-Nov-14	303.61	400.00	

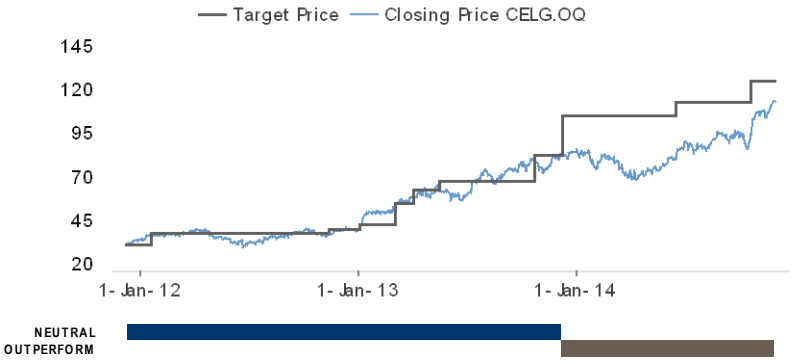
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Celgene Corp. (CELG.OQ)

CELG.OQ	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
09-Dec-11	31.79	31.00	N
19-Jan-12	36.10	37.50	
12-Nov-12	37.83	40.00	
03-Jan-13	40.86	42.50	
04-Mar-13	52.78	55.00	
04-Apr-13	57.98	62.50	
17-May-13	62.46	67.50	
24-Oct-13	78.98	82.50	
10-Dec-13	85.38	105.00	O
18-Jun-14	80.54	112.50	
24-Jul-14	86.19	113.00	
22-Oct-14	94.76	125.00	

** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Cipla Limited (CIPL.BO)

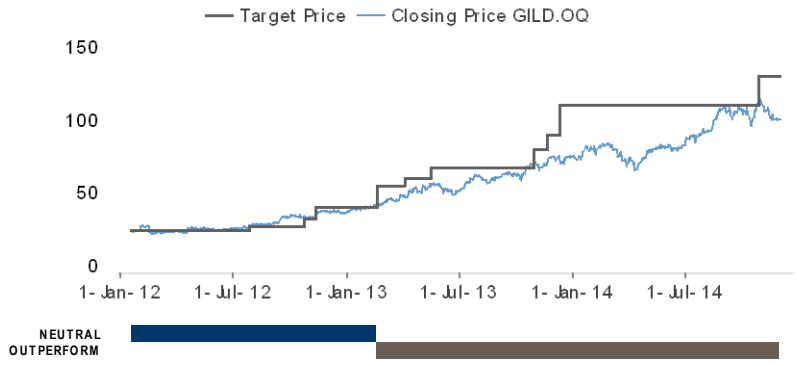
CIPL.BO	Closing Price	Target Price	
Date	(Rs)	(Rs)	Rating
09-Jan-12	344.20	360.00	O
31-Jul-12	338.55	390.00	
12-Dec-12	415.40	475.00	
29-May-13	401.55	415.00	N
15-Aug-14	448.00	460.00	
14-Nov-14	608.85	585.00	

** Asterisk signifies initiation or assumption of coverage.*

3-Year Price and Rating History for Gilead Sciences Inc. (GILD.OQ)

GILD.OQ	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
19-Jan-12	23.60	24.00	N
27-Jul-12	27.75	27.00	
24-Oct-12	34.17	32.50	
12-Nov-12	36.96	40.00	
19-Feb-13	42.28	55.00	O
04-Apr-13	47.74	60.00	
17-May-13	56.30	67.00	
29-Oct-13	69.50	80.00	
20-Nov-13	71.08	90.00	
10-Dec-13	72.81	110.00	
28-Oct-14	113.45	130.00	

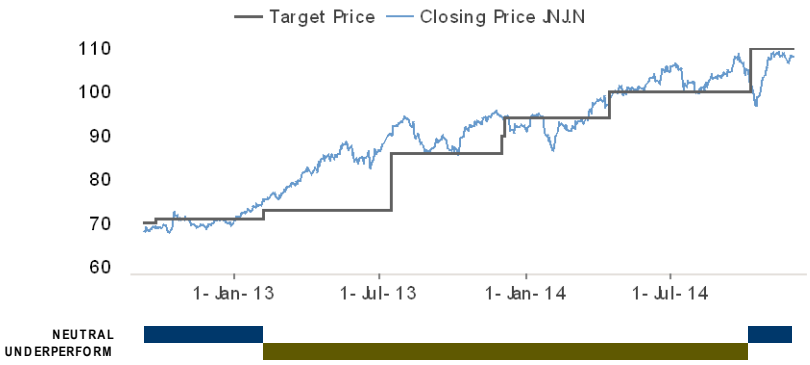
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Johnson & Johnson (JNJ.N)

JNJ.N	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
11-Sep-12	68.20	70.00	N
25-Sep-12	69.32	71.00	
07-Feb-13	75.06	73.00	U
23-May-13	87.21		*
15-Jul-13	90.40	73.00	U
16-Jul-13	90.40	86.00	
02-Dec-13	94.28	90.00	
05-Dec-13	92.97	94.00	
15-Apr-14	99.20	100.00	
09-Oct-14	102.08	110.00	N *

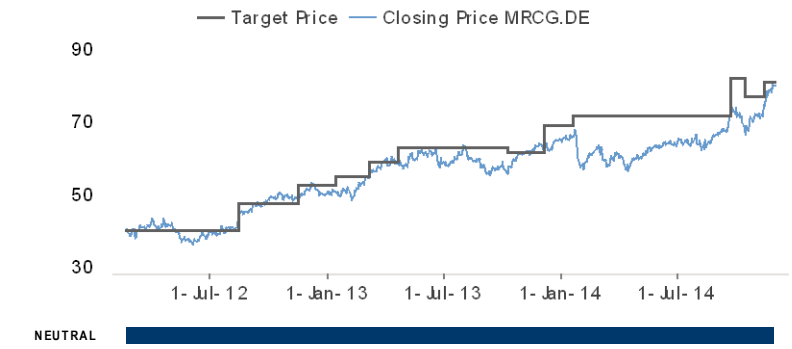
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Merck KGaA (MRCG.DE)

MRCG.DE	Closing Price	Target Price	
Date	(€)	(€)	Rating
22-Feb-12	40.33	40.00	N *
15-Aug-12	43.29	47.50	
16-Nov-12	48.57	52.50	
14-Jan-13	50.70	55.00	
08-Mar-13	57.18	59.00	
22-Apr-13	58.15	63.00	
10-Oct-13	56.55	61.50	
05-Dec-13	65.25	69.00	
20-Jan-14	65.98	71.50	
23-Sep-14	73.22	82.00	
15-Oct-14	67.12	77.00	
14-Nov-14	74.29	81.00	

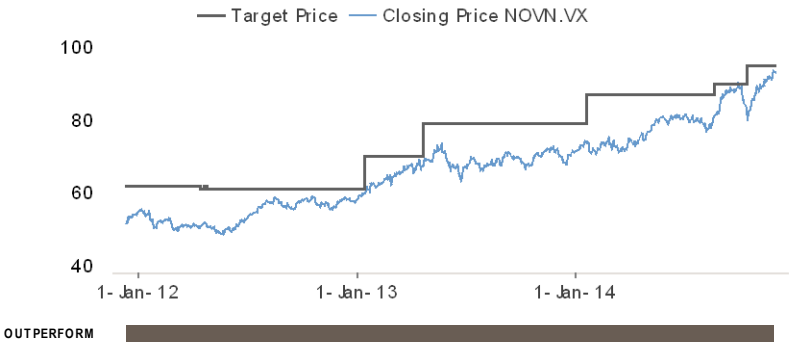
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Novartis (NOVN.VX)

NOVN.VX	Closing Price	Target Price	
Date	(SFr)	(SFr)	Rating
12-Dec-11	51.69	61.89	O
22-Feb-12	52.96		*
13-Apr-12	50.58	61.00	O
20-Apr-12	51.95	61.89	
25-Apr-12	50.68	61.00	
14-Jan-13	60.05	70.00	
22-Apr-13	67.55	79.00	
20-Jan-14	73.80	87.00	
22-Aug-14	81.35	90.00	
15-Oct-14	81.20	95.00	

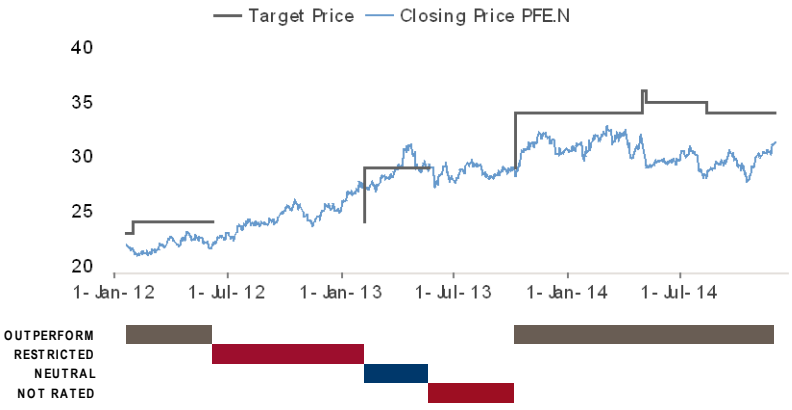
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Pfizer (PFE.N)

PFE.N	Closing Price	Target Price	
Date	(US$)	(US$)	Rating
20-Jan-12	21.90	23.00	O
31-Jan-12	21.40	24.00	
07-Jun-12	21.94		R
07-Feb-13	26.96	29.00	N
22-May-13	29.30		NR
08-Oct-13	28.24	34.00	O *
01-May-14	31.15	36.00	
07-May-14	29.02	35.00	
13-Aug-14	28.21	34.00	

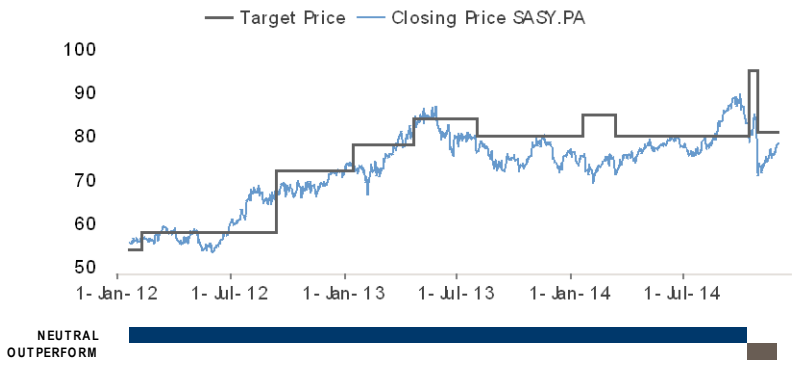
** Asterisk signifies initiation or assumption of coverage.*



3-Year Price and Rating History for Sanofi (SASY.PA)

SASY.PA	Closing Price	Target Price	
Date	(€)	(€)	Rating
20-Jan-12	55.52	54.00	N
09-Feb-12	56.11	58.00	
13-Sep-12	66.91	72.00	
14-Jan-13	72.92	78.00	
22-Apr-13	80.22	84.00	
02-Aug-13	76.36	80.00	
20-Jan-14	75.48	85.00	
13-Mar-14	71.74	80.00	
15-Oct-14	79.50	95.00	O
29-Oct-14	71.15	81.00	

** Asterisk signifies initiation or assumption of coverage.*



The analyst(s) responsible for preparing this research report received Compensation that is based upon various factors including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's investment banking activities

As of December 10, 2012 Analysts' stock rating are defined as follows:

Outperform (O) : The stock's total return is expected to outperform the relevant benchmark*over the next 12 months.

Neutral (N) : The stock's total return is expected to be in line with the relevant benchmark* over the next 12 months.

Underperform (U) : The stock's total return is expected to underperform the relevant benchmark* over the next 12 months.

**Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin American and non-Japan Asia stocks, ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark; prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, 12-month rolling yield is incorporated in the absolute total return calculation and a 15% and a 7.5% threshold replace the 10-15% level in the Outperform and Underperform stock rating definitions, respectively. The 15% and 7.5% thresholds replace the +10-15% and -10-15% levels in the Neutral stock rating definition, respectively. Prior to 10th December 2012, Japanese ratings were based on a stock's total return relative to the average total return of the relevant country or regional benchmark.*

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Volatility Indicator [V] : A stock is defined as volatile if the stock price has moved up or down by 20% or more in a month in at least 8 of the past 24 months or the analyst expects significant volatility going forward.

Analysts' sector weightings are distinct from analysts' stock ratings and are based on the analyst's expectations for the fundamentals and/or valuation of the sector* relative to the group's historic fundamentals and/or valuation:

Overweight : The analyst's expectation for the sector's fundamentals and/or valuation is favorable over the next 12 months.

Market Weight : The analyst's expectation for the sector's fundamentals and/or valuation is neutral over the next 12 months.

Underweight : The analyst's expectation for the sector's fundamentals and/or valuation is cautious over the next 12 months.

**An analyst's coverage sector consists of all companies covered by the analyst within the relevant sector. An analyst may cover multiple sectors.*

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Global Ratings Distribution

Rating	Versus universe (%)	Of which banking clients (%)
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Neutral/Hold*	38%	(50% banking clients)
Underperform/Sell*	14%	(44% banking clients)
Restricted	2%	

**For purposes of the NYSE and NASD ratings distribution disclosure requirements, our stock ratings of Outperform, Neutral, and Underperform most closely correspond to Buy, Hold, and Sell, respectively; however, the meanings are not the same, as our stock ratings are determined on a relative basis. (Please refer to definitions above.) An investor's decision to buy or sell a security should be based on investment objectives, current holdings, and other individual factors.*

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Price Target: (12 months) for Coherus Biosciences (CHRS.OQ)

Method: Our DCF-derived TP of $22 assumes: (1) CHS-1420 (Humira biosimilar) is launched in the US and EU in 2017. We model worldwide CH-1420 peak sales of ~$820M in 2024. (2) CHS-0214 (Enbrel biosimilar) is launched ex-US in 2017. We assume a 12% royalty rate and model peak ex-US royalties of $45M from Baxter and Daiichi Sankyo. We risk weight our cash flows by 50%. We do not assign a terminal value and we have not included Coherus' other pipeline in our DCF.

Risk: The risks to our $22 TP and Outperform rating are: (1) Regulatory uncertainty surrounding approval pathways for biosimilars as well as biologic patent expiration dates (2) Lower than expected uptake of biosimilars (3) Physician resistance to switching to patients from biologics to biosimilars.

Price Target: (12 months) for AbbVie Inc. (ABBV.N)

Method: Our target price of $68 is based on stand-alone valuation for ABBV. It assumes 75/25 blend of DCF value and forward PE.

Risk: Key risks to our TP of $68: Unexpected sales slowdown for Humira, combined with unexpected issues with key pipeline products, and unexpected updates on past Shire offer.

Price Target: (12 months) for Amgen Inc. (AMGN.OQ)

Method: Our $160 target price for AMGN implies a 10% premium to the S&P 500 2015 PE multiple on our 2015 non-GAAP ex-option EPS estimate

Risk: We see several risks to AMGN's achievement of our $160 target price. (1) More or less biosimilar competition relative to our model. (2) Denosumab could exceed or miss our expectations. (3) Erythropoietin safety concerns could be more or less than our model. (4) Pipeline exceeds expectations. (5) Share buyback could be less aggressive than our model.

Price Target: (12 months) for Baxter International Inc. (BAX.N)

Method: Our $77 DCF-derived price target assumes an 8.0% weighted average cost of capital and a 2.5% terminal growth rate.

Risk: Risks to our $77 price target include 1) share Loss to long-acting recombinant factor VIII agents may be greater than we model, 2) longer-acting recombinants may create pricing pressure for BAX' short-acting recombinant franchise, 3) Hemophilia pipeline delays may adversely affect out-year growth, 4) planned plasma capacity additions might face delays and 5) Gambro synergies may fall short of expectations.

Price Target: (12 months) for Biogen Idec (BIIB.OQ)

Method: Our $400 target price for BIIB is about 26.4x our 2015 option-adjusted EPS estimate of $15.18. This multiple for BIIB is justified due to its >15% growth in 2017, minimal patent risk through 2020, and significant pipeline potential.

Risk: We see several risks to BIIB's achievement of our $400 target price. (1) Tecfidera peak sales could be below our estimates. 2) Avonex share losses are more than expected, slowing down revenue growth. 3) Tysabri net patient additions accelerate less than expected. 4) Significant portion of the mid-stage pipeline fails. 5) BIIB's share buyback program could be less aggressive than expected. 6) Sales of the Hemophilia franchise could be below our estimates.

Price Target: (12 months) for Celgene Corp. (CELG.OQ)

Method: Our $125 target price for CELG is about 25.9x our option-adjusted 2015 EPS estimate of $4.83, representing about a 60% premium to the S&P 500 PE multiple. This multiple for CELG is justified due to >25% growth to 2017.

Risk: We see several risks to CELG's achievement of our $125 target price. (1) Revlimid could face a further delay in Europe. (2) Increases in treatment duration and penetration in the first-line setting for multiple myeloma could be lower than our expectations. (3) Otezla, Pomalyst, and other marketed products could underperform our current estimates. (4) Pipeline failures.

Price Target: (12 months) for Cipla Limited (CIPL.BO)

Method: Our target price of Rs585 for Cipla Limited is based on 20x FY17E EPS (earnings per share). We value Cipla at sector average multiple of 20x.

Risk: In our view, there are three key risks to our Rs585 target price for Cipla. 1) Since CY03, Cipla has been involved in a lawsuit with the National Pharmaceutical Pricing Authority in India. If Cipla loses the lawsuit (the company believes it is likely to win), there could be downside on earnings. 2) slow ramp up in exports from Indore SEZ 3) delay in inhalers launch in Europe

Price Target: (12 months) for Gilead Sciences Inc. (GILD.OQ)

Method: Our target price of $130 for GILD implies about 16.9x on our 2015 EPS estimate of $7.65, representing about a ~10% premium to the S&P 500 PE multiple.

Risk: The risks to GILD's achievement of our $130 target price are: (1) The Sofosbuvir/Ledipasvir launch in HCV fails to meet our sales expectations; (2) Delays or failures in key pipeline products; (3) Greater therapeutic substitution in the HIV space than what we currently model; (4) Lower share repurchases than we currently model.

Price Target: (12 months) for Johnson & Johnson (JNJ.N)

Method: Our $110 target price is based 50/50 blend of DCF ($110) and relative valuation ($110). We use a 7.5% WACC along with a 1.5% perpetuity growth forecast for our DCF valuation and apply ~16.5 times our 2015 cash EPS estimate for relative valuation.

Risk: Key upward risks to our $110 target price include (1) key Pharma growth drivers under attack from new and emerging competitors and could have further downside than we project; (2) pipeline setbacks could limit potential of new products to replace growth that we believe key marketed products will lose in coming years; and (3) macroeconomic recovery could shift investors away from more defensive names such as JNJ.

Price Target: (12 months) for Merck KGaA (MRCG.DE)

Method: We value Merck KGaA on a PE relative basis to the European markets, modulated by our PharmaValues NPV. Our European Specialty Pharma 2014/15 PE market-relative assumption is 140% and our sector PE relative for Merck KGaA is 90%, giving a target price of EUR 81 (previously EUR77). Merck KGaA's 3 year historical average PE sector relative is 71%.

Risk: Risks to our thesis include lower Erbitux or Rebif revenue. A dramatic increase in LCD competition with a more significant decline in profitability would be a negative.

Price Target: (12 months) for Novartis (NOVN.VX)

Method: We value Novartis on a PE relative basis to the European markets. Our European Major Pharma 2014/15 PE market-relative assumption is 140% and our sector PE relative for Novartis is 100% giving a price target of SFr 95 per share. Novartis ‘s 3 year historical average PE sector relative is 90%.

Risk: In addition to the typical pharmaceutical industry risks associated with potential product approvals (serelaxin 2014E), withdrawals and patent challenges, a key risk is that Diovan patent expiry has a greater profit impact than forecast. As a US dollar reporter but with significant Swiss franc costs, NOVN has foreign exchange exposure.

Price Target: (12 months) for Pfizer (PFE.N)

Method: Our target price of $34 is based on 50%/25%/25% blend of DCF ($35), sum-of-the-parts ($34), and relative valuation ($33), respectively.

Risk: Key risks to our target price of $34 include lower-than-expected revenues; unanticipated pipeline setbacks; worse-than-expected operating margin.

Price Target: (12 months) for Sanofi (SASY.PA)

Method: We value Sanofi on a PE relative basis to the European markets, and modulated by our NPVs. Our European Major Pharma 2014 PE market-relative assumption is 110% and our sector PE relative for Sanofi is 85% giving a price target of EUR 81 per share. Sanofi ‘s 3-year historical average PE sector relative is 87%.

Risk: In addition to the typical pharmaceutical industry risks associated with potential product approvals (eg, alirocumab 2016E), withdrawals and patent challenges, a key risk for Sanofi is that the Emerging Markets and Vaccines franchises fail to grow owing to price pressure from governments or generic competition. Given the importance of Lantus to the group there is a particular risk surrounding possible increased competition from 2015/2016 (depending on the outcome of the ongoing legal challenge by LLY). There is an additonal risk surrounding the lack of a currnt CEO

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