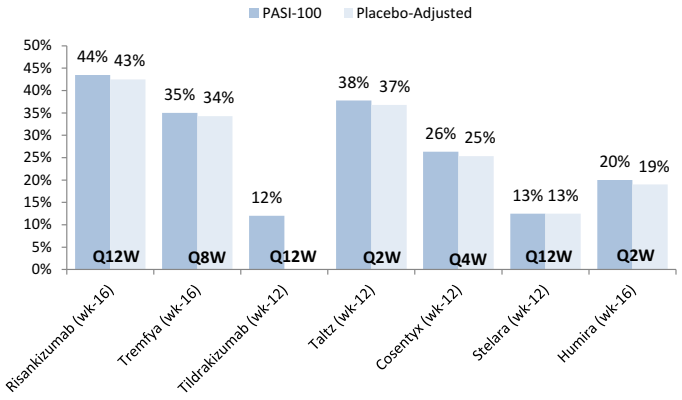
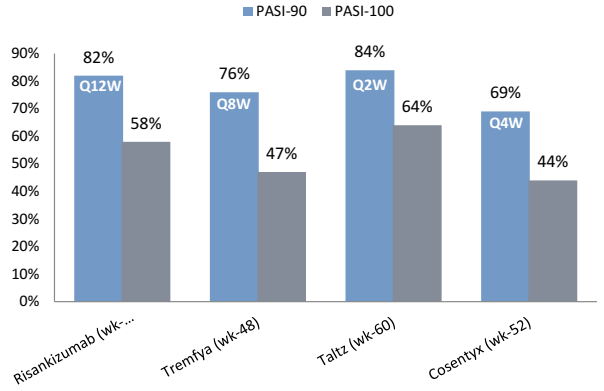
Exhibit 19: Key Psoriasis Clinical Trials (Phase 3)
Data compiled not from head-to-head studies



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 20: Long-Term Response PASI-90 and PASI-100 (Phase 3)
Data compiled not from head-to-head studies. Non-placebo adjusted values



Source: Company data, Goldman Sachs Global Investment Research

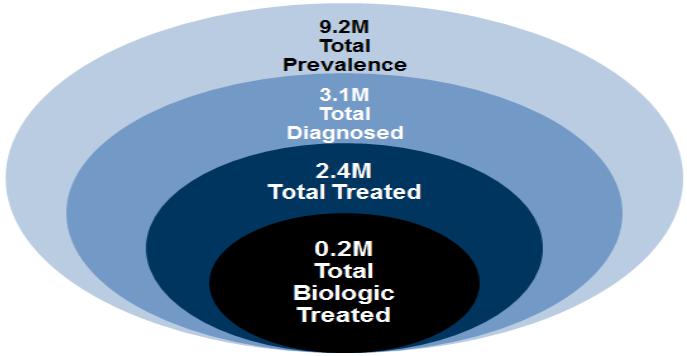
Exhibit 21: Safety Analysis from Key Studies in Psoriasis
Data not from head-to-head studies

	VOYAGE-1 (Phase 3)			VOYAGE- 2 (Phase 3)			ultIMMa-1 (Phase 3)			ultIMMa-2 (Phase 3)			IMMvent (Phase 3)		IMMhance (Phase 3)		PHOENIX I (Phase 3)		
Drug	Placebo	Tremfya	Humira	Placebo	Tremfya	Humira	Risankizumab	Stelara	Placebo	Risankizumab	Stelara	Placebo	Risankizumab	Humira	Risankizumab	Placebo	Placebo	Stelara	
Dosing		100mg	80mg/40mg		100mg	80mg/40mg	150mg	45/90 mg		150mg	45/90 mg		150mg	80mg/40mg	150mg			45mg	90mg
AES (week 0-16)	50%	52%	51%	45%	48%	48%	49.7%	50.0%	51.0%	45.6%	53.5%	45.9%	55.8%	56.9%	45.5%	48.0%	48%	58%	51%
Discontinuations	1%	1%	1%	1%	1%	2%	--	--	--	--	--	--	--	--	--	--	2%	0%	2%
Infections	25%	26%	26%	19%	22%	23%	--	--	--	--	--	--	--	--	--	--	27%	31%	26%
Serious AES	2%	2%	2%	1%	2%	2%	2.3%	8.0%	2.9%	2.0%	3.0%	1.0%	3.3%	3.0%	2.0%	8.0%	1%	1%	2%
Serious Infections	0%	0%	1%	0%	0%	1%	0.3%	3.0%	0%	1.0%	1.0%	0%	0.3%	0.3%	0.0%	1.0%	0%	0%	1%
MACE	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	1.0%	0%	0%	0%
Malignancies	0%	0%	0%	0%	0%	0%	0.3%	0.0%	1.0%	0.3%	0%	0%	0.3%	0.3%	0.7%	0.0%	0%	0%	0%
Death	--	--	--	--	--	--	0%	0%	0%	0%	0%	0%	n=1	n=2	0%	0%	--	--	--
AES (week 0-48/52)	--	74%	75%	--	58%	63%	--	--	--	--	--	--	--	--	--	--	--	--	--
Discontinuations	--	3%	4%	--	2%	2%	--	--	--	--	--	--	--	--	--	--	--	--	--
Infections	--	52%	50%	--	31%	35%	--	--	--	--	--	--	--	--	--	--	--	--	--
Serious AES	--	5%	5%	--	4%	4%	8%	11%	--	7%	7%		6%	4%	--	--	--	--	--
Serious Infections	--	0.6% (n=2)	0.9% (n=3)	--	1%	1%	--	--	--	--	--	--	--	--	--	--	--	--	--
MACE	--	0.3% (n=1)	0.3% (n=1)	--	0%	0%	--	--	--	--	--	--	--	--	--	--	--	--	--
Malignancies	--	0.6% (n=2)	0%	--	0%	0%	--	--	--	--	--	--	--	--	--	--	--	--	--
Deaths	--	--	--	--	--	--	0%	0%	0%	n=1	--	--	--	--	--	--	--	--	--

Source: Company data, Goldman Sachs Global Investment Research

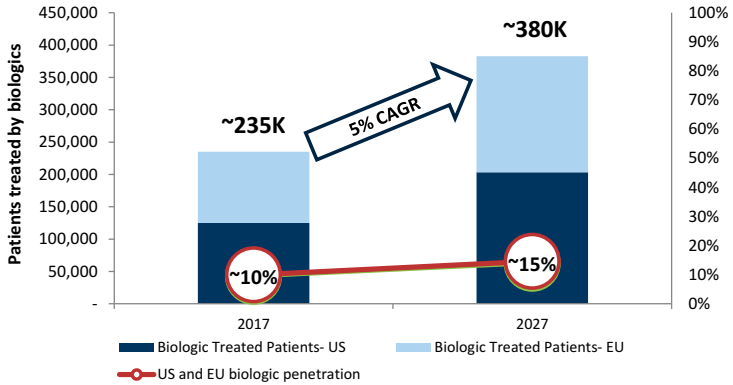
Psoriasis: Commercial opportunity

Exhibit 22: Patient Market Breakdown



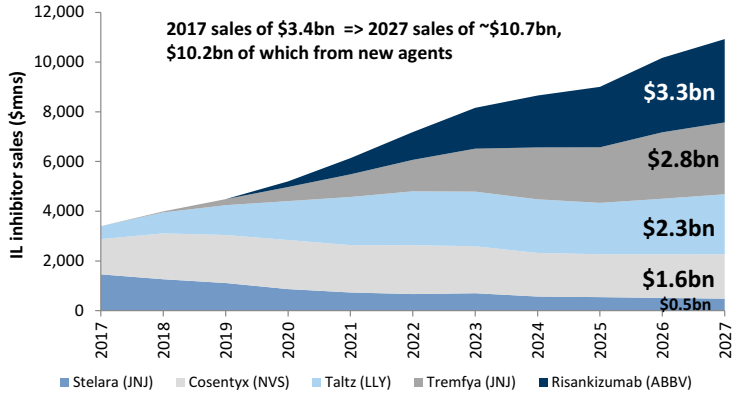
Source: Goldman Sachs Global Investment Research

Exhibit 23: Psoriasis Biologic Treated Patients



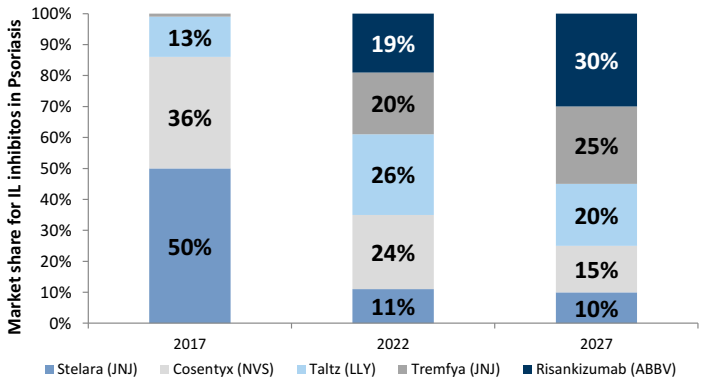
Source: Goldman Sachs Global Investment Research

Exhibit 24: New Product Sales



Source: Goldman Sachs Global Investment Research

Exhibit 25: New Product Penetration Outlook



Source: Goldman Sachs Global Investment Research

Psoriasis: What do we expect to see next?

Exhibit 26: Upcoming catalysts in Psoriasis/Atopic Derm

Psoriasis/Atopic Derm				
Company (Drug)	**Phase**	**Readout**	**US Approval**	**EU Approval**
ABBV (Upadacitinib)				
Initiate phase 3 in AD		1H 2018	*est. 2021*	
ABBV (Risankizumab)				
ULTIMMA-1,2/IMMVENT			*est. 2019*	
LLY (Baricitinib)				
Phase 2		2018	*est. 2021*	
LLY (Taltz)				
UNCOVER-1,2,3			*Approved*	*Approved*
JNJ (Tremfya)				
VOYAGE-1,2/NAVIGATE			*Approved*	*Approved*
Sun Pharma (Tildrakizumab)				
reSURFACE- 1,2			*Approved*	*Approved*
NVS (Cosentyx)				
FIXTURE/ERASURE			*Approved*	*Approved*

Source: Company data

Crohn's Disease: Is there an unmet need?

Exhibit 27: Snapshot of Crohn's disease

Crohn's Disease (CD)

Total Treated Population (US & EU)

~1.1 Million

Biologic Penetration

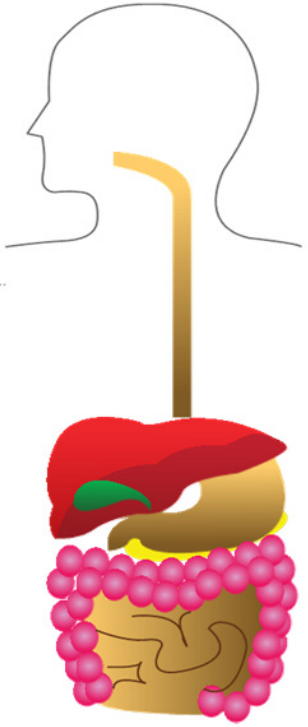
~37%

How big is the market today?

~$10bn

What is CD?

Inflammation associated with CD may affect any part of the GI track, although it is often localized to either the end of the small intestine and the beginning of the colon. CD results in patchy inflammation that extends through the entire thickness of the intestinal wall and is frequently associated with granuloma formation which may evolve to progressive damage over time.



How is it treated?

The conventional, "Bottom-up" strategy involves sequential treatment for remission and maintenance resulting in reduced side effects. Patients are initially treated with anti-inflammatory medication (i.e. steroids) to treat flare ups and with antibiotics to reduce intestinal bacteria. In more severe cases, immunomodulators (i.e. MTX) will be administered after which patients who fail to respond will begin biologic therapy, and potentially later-stage surgery. The "Top-down" approach involves early use of biologics to induce a rapid clinical response followed by later stage immunomodulators, anti-inflammatory and surgery.

Source: Company data, Goldman Sachs Global Investment Research

Crohn's Disease: Who wins?

We believe the unmet need is most significant in the IBD space (20-45% of patients fail to respond to TNF inhibitors and therefore are not adequately controlled on 1L TNF therapy) given broad immunosuppression from the TNFs (vs. targeted in the gut) has led to less than satisfying efficacy and particularly safety profiles in this setting. The newer agents are still some years from the market but pose an exciting opportunity given the impressive and superior risk/benefit profile as a result of the targeted profiles demonstrated through the phase 2 data (see exhibits 28, 29). While there is significant biologic penetration given the lack of treatment options outside of TNFs, we expect greater use of the newer biologics earlier in the treatment paradigm as physicians transition to biologics first instead of as a later line treatment option. At a minimum, we expect this to be a $5bn market in 2027, 5 years post launch, although we see most room for upside to our estimates longer term driven by greater durability of use and higher market share (we currently model relatively conservative uptake in 1L).

Within CD, we have seen phase 2 data from the two oral JAKs, Upadacitinib and Filgotinib and an IL-23, Risankizumab. We expect Filgotinib to reach the market first in 2021 followed by the other two (Risankizumab and Upadacitinib) in 2022; we are aware of JNJ's Tremfya in development for CD although we have not seen data and it might launch in the same time frame. We note that we have only seen phase 2 data from the new agents, as opposed to more mature data in RA and psoriasis, and the patient populations differ (Bio-IR and Bio-Naive) as do the endpoints making them not exactly comparable. However, we attempt to draw inferences based on clinical remission and endoscopic response across trials, although we still need to see confirmatory phase 3 datasets, expected in the 2019-2020 timeframe.

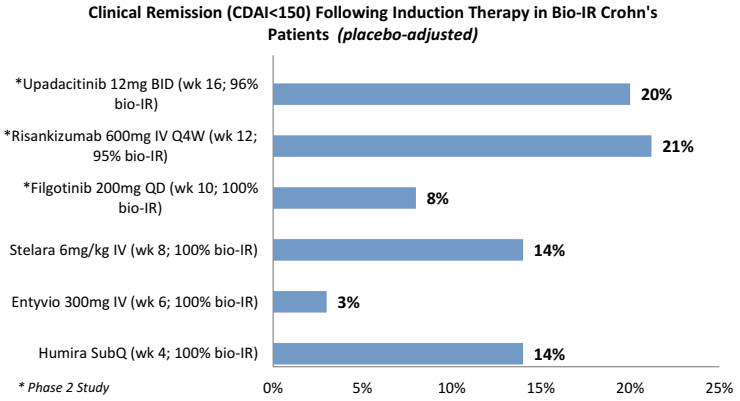
ABBV well positioned with two competitive assets. We have seen impressive efficacy from Upadacitinib and Risankizumab in the more refractory bio-IR population, with both assets fairly similar in terms of clinical remission and endoscopic response (see exhibit 28, 29) and more compelling than filgotinib's data in this population. Risankizumab screens the best in terms of safety given the JAKs have the class effect on higher infection rates, although they do offer a more convenient once-daily oral formulation (vs. subQ injection with Risankizumab). The Risankizumab phase 2 maintenance data also demonstrated continued durability of clinical and endoscopic response following induction therapy demonstrating durability of response. The key takeaway here is that ABBV is well positioned across the spectrum of new agents coming to this market, which along with Humira should give it a commercial advantage by leveraging its presence with physicians and payors.

Filgotinib has shown impressive efficacy in Bio-naive patients; likely to be first to market. From the phase 2 Fitzroy study, Filgotinib has demonstrated compelling efficacy in bio-naive patients with less compelling efficacy in the tougher to treat bio-IR patients relative to ABBV's new assets. From a safety profile, while Filgotinib is least likely to have drug interactions making it suitable to be used in combination, testicular toxicity is a risk factor to watch especially if it leads to

dose limitations and a resulting less potent efficacy profile (in male patients). It is important to note that GLPG is required by the FDA to complete a dedicated testicular toxicity study for their male patients based on a potential risk with Filgotinib 200mg as discovered during pre-clinical trials. At this point, we expect GLPG to be first to market in this indication with a 1-1.5 year of lead time and expect ~$1bn in CD sales by 2027.

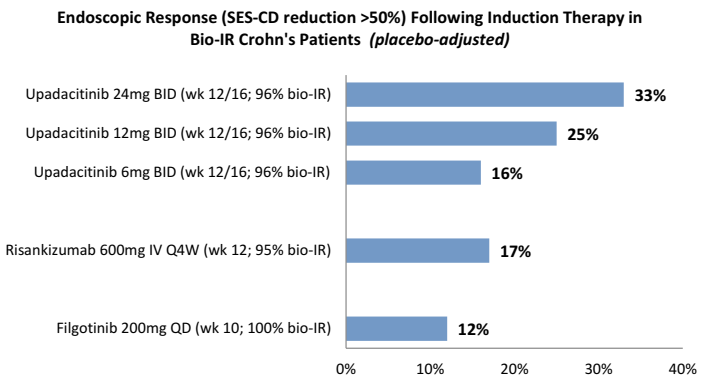
Stelara to be a near term winner in CD, Xeljanz will have some use in UC. We expect Stelara (JNJ) uptake in CD to be meaningful until the next gen-assets make it to market given the impressive efficacy vs. TNFs and the unmet need in this setting. We note that JNJ has highlighted that Stelara is taking share from Remicade (2nd biggest biologic in CD) but also expect it to drive biologic penetration. PFE's Xeljanz is likely to have some use in UC as an alternative option to the injectables until the other JAKs get on the market where the efficacy does look better than Humira's studies although safety is likely to remain a gating factor.

Exhibit 28: Clinical Remission (CDAI<150) following Induction Therapy in TNF Non-Responders
Data compiled not from head-to-head studies



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 29: Endoscopic Response (SES-CD reduction> 50%) following Induction Therapy in TNF Non-Responders
Data compiled not from head-to-head studies (Phase 2 studies compiled)



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 30: Safety Profile of JAK-Inhibitors in Crohn's Disease
Data compiled is not from head-to-head studies. ABBV's CELEST trial includes a more refractory Bio-IR population, while GLPG's FITZROY study includes both Bio-IR and Bio-Naive patients.

	CELEST (Phase 2)					FITZROY (Phase 2)					
Drug	Placebo	Upadacitinib				Placebo	Filgotinib	Placebo	Filgotinib	Placebo	Filgotinib
Dosing		6mg BID	12mg BID	24mg BID	24mg QD		200mg QD		200mg QD		200mg QD
Subgroups	**Bio-IR Only**					**Bio-IR & Bio-Naïve Pooled**					
MOA	JAK-1 Inhibitor					JAK-1 Inhibitor					
Route	Oral					Oral					
Duration	16 weeks					0-10 weeks		10-20 weeks		20 weeks pooled	
AES	73%	76%	81%	83%	86%	59%	74%	61%	81%	67%	75%
Serious AES	5%	5%	28%	8%	20%	0%	0%	0%	16%	4%	9%
Discontinuation due to AES	14%	3%	25%	8%	14%	0%	0%	0%	29%	9%	18%
Crohn's Disease Event	--	--	--	--	--	--	--	--	--	--	--
Infections	32%	49%	39%	50%	34%	23%	30%	26%	34%	25%	32%
Serious Infections	0%	0%	n=3 (8%)	n=1 (3%)	n=2 (6%)	0%	0%	0%	4 (5%)	0%	4 (3%)

Source: Company data, Goldman Sachs Global Investment Research

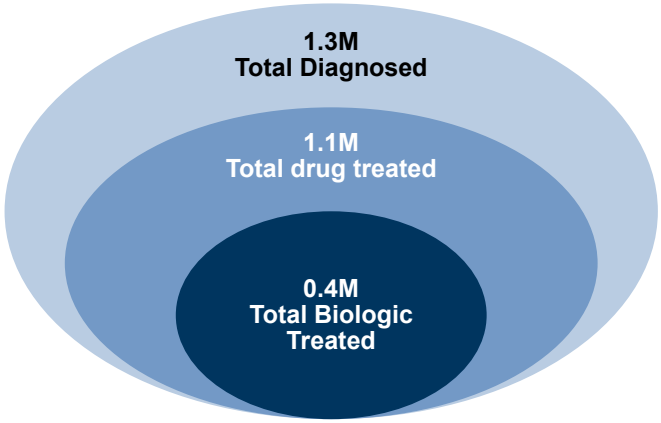
Exhibit 31: Safety Profile of IL-Inhibitors in Crohn's Disease
Data is not from head-to-head studies

	Risankizumab (Phase 2)			UNITI-1 (Phase 3)			UNITI-2 (Phase 3)			Risankizumab (Phase 2)	IM-UNITI (Phase 3)		
Drug	Placebo	Risankizumab		Placebo	Stelara		Placebo	Stelara		Risnakizumab	Placebo	Stelara	
Dosing		200mg q4w	600mg q4w		130mg	6mg/kg		130mg	6mg/kg	180mg q8w		90mg/12wk	90mg/8wk
Subpopulation	**96% Bio-IR**			**Bio-IR**			**Bio-Naïve**			**96% Bio-IR**	**Bio-IR & Bio-Naïve**		
MOA	IL-23mAb			IL-12/23mAb						IL-23mAb	IL-12/23mAb		
Route	IV			IV						SubQ	SubQ		
	Induction (week 12)			Induction (week 8)			Induction (week 8)			**Maintenance (week 52)**	**Maintenance (week 44)**		
AES	82%	78%	76%	65%	65%	66%	54%	50%	56%	74%	84%	80%	82%
Serious AES	31%	22%	7%	6%	5%	7%	6%	5%	3%	13%	15%	12%	10%
Discontinuation due to AES	15%	12%	2%	--	--	--	--	--	--	3%	--	--	--
Crohn's Disease Event	15%	5%	0%	10%	5%	2%	5%	4%	3%	8%	14%	12%	12%
Infections	28%	27%	32%	24%	23%	26%	23%	15%	22%	36%	50%	46%	48%
Serious Infections	n=3	n=1	n=2	n=3 (1.2%)	n=3 (1.2%)	n=7 (2.8%)	n=3 (1.4%)	n=3 (1.4%)	n=1 (0.5%)	n=1 (1.6%)	n=3 (2.3%)	n=7 (5.3%)	n=3 (2.3%)

Source: Company data, Goldman Sachs Global Investment Research

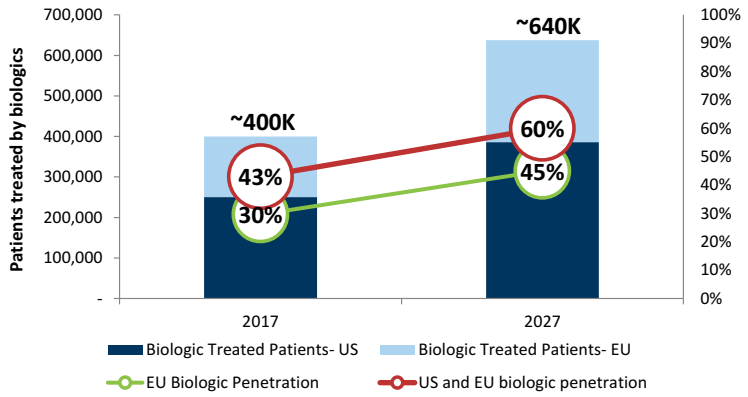
Crohn's Disease: Commercial opportunity

Exhibit 32: Patient Market Breakdown



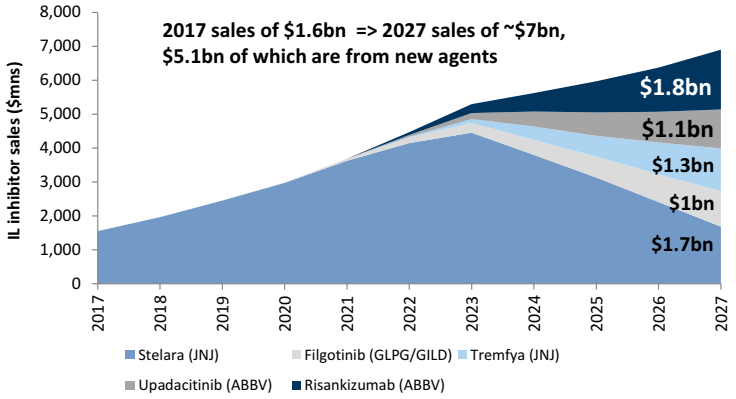
Source: Goldman Sachs Global Investment Research

Exhibit 33: CD Biologic Treated Patients



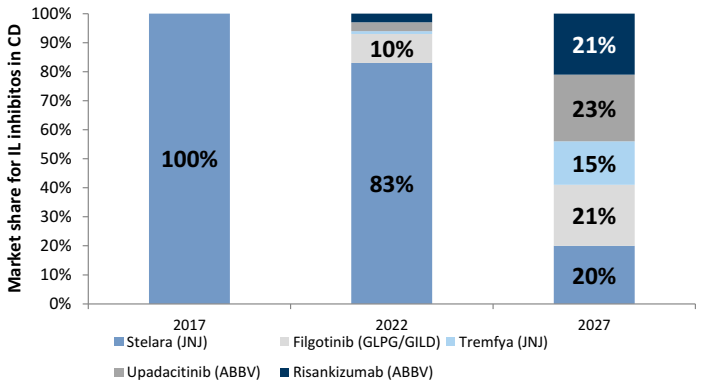
Source: Goldman Sachs Global Investment Research

Exhibit 34: New Product Sales



Source: Goldman Sachs Global Investment Research

Exhibit 35: New Product Penetration Outlook



Source: Goldman Sachs Global Investment Research

Crohn's Disease: What do we expect to see next?

Exhibit 36: Upcoming catalysts in CD and UC

Crohn's Disease (CD)/ Ulcerative Colitis (UC)				
Company (Drug)	**Phase**	**Readout**	**US Approval**	**EU Approval**
ABBV (Upadacitinib)				
Initiate phase 3 (CD)		2H 2017	*est. 2022*	
Phase 2b data in (UC)		2H 2018		
ABBV (Risankizumab)				
Initiate phase 3 (CD)		2H 2017	*est. 2022*	
Initiate phase 3 (UC)		1H 2018	*est. 2023*	
GILD/GLPG (Filgotinib)				
DIVERSITY-1 (CD)		2H 2019	*est. 2020/2021*	
SELECTION-1 (UC)		2H 2019		
JNJ (Tremfya)				
Planned phase 3 (CD)		---	*est. 2022*	
Planned phase 3 (UC)		---	*est. 2023*	
JNJ (Stelara)				
UNIFI-Phase 3 (UC)		2H 2018	*est. 2019*	
PFE (Xeljanz)				
PDUFA (UC)		March 2018 (PDFUA)	*est. 2018*	

Source: Company data, Goldman Sachs Global Investment Research