

Reason for report:

INITIATION

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HEALTHCARE EQUITY RESEARCH

ENANTA PHARMACEUTICALS, INC.

A Unique Way to Participate in the Large HCV Market; Initiate at OP

• **Bottom Line:** Bottom Line: We are initiating coverage with an Outperform rating and valuation of ~\$28. ENTA offers an opportunity to participate in the multi-billion HCV market for IFN-free regimen as a small cap but late-stage player. ENTA is partnered with ABBV on ABT-450, which is the protease inhibitor (PI) in ABBV's all oral HCV treatment regimen which is one of the only 2 late-stage regimens that have broad genotype-1 activity and anticipated to reach the market in 2015. We are more bullish than the Street on the size of HCV market. ENTA's valuation is based primarily on the initial market for IFN-free regimens. We believe ENTA represents a way to participate in the market upside without taking long-term market risks.

• **We believe our market share assumption of 70:30 split for GILD:ABV in GT-1 patients is supported by the example of HCV protease inhibitor market.** Though we believe GILD will be a fierce competitor, the market is large enough for multiple players. The current HCV protease inhibitor market is split approximately 70:30 between VRTX's (OP) Incivek and MRK's (MP) Victrelis. The efficacy and convenience advantage for Incivek over Victrelis is arguably bigger than the difference between the GILD and ABBV regimens although there does not appear to be a safety / tolerability advantage for ABBV over GILD that Victrelis is at least perceived to hold over Incivek.

• **We believe ENTA's valuation is well supported by potential ABBV milestone payments and royalties on early ABT-450 sales.** ENTA is entitled to tiered double digit royalties on sales attributable to ABT-450, and we believe there is upside to the stock as ABBV HCV numbers rise to reflect the overall market potential.

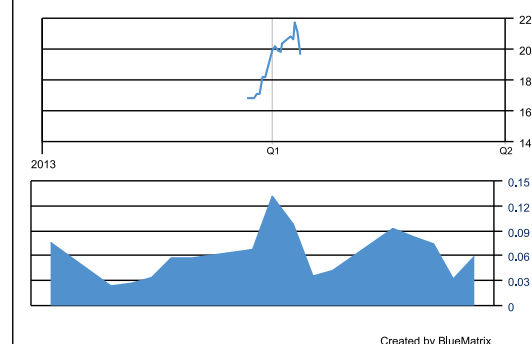
• **Several upside scenarios exist.** We conservatively model no sales for ABT-450 post 2020. The biggest upside for ENTA would be if GILD's HCV program somehow stumbles although we think this is unlikely. However the scenario that earlier-stage competitors experience a setback is realistic in our view. Furthermore, ABBV/ENTA next-gen PI (in Phase I) could extend the HCV franchise into the next decade. ENTA has a 40% profit-share option on this agent. In addition, ENTA is also entitled to economics on EDP-239, its NS5A inhibitor partnered with NVS, in Phase I development. We currently attribute limited value to these programs; however successful advancement and development could create significant royalty and milestone payments for ENTA. Furthermore, ENTA has a productive medicinal chemistry platform with 3 interesting pre-clinical programs including a cyclophilin inhibitor for HCV, a nucleotide HCV polymerase inhibitor, and a novel antibiotic that could potentially advance to the clinic in the 2014 timeframe.

Key Stats:

(NASDAQ:ENTA)

S&P 600 Health Care Index:	911.41
Price:	\$19.68
52 Week High:	\$22.17
52 Week Low:	\$14.00
Shares Outstanding (mil):	17.4
Market Capitalization (mil):	\$342.4
Book Value/Share:	\$0.00
Cash Per Share:	\$6.31
Net Debt to Total Capital:	0%
Dividend (ann):	\$0.00
Dividend Yield:	0.0%
Valuation:	~\$28 on DCF analysis
General: IPO was priced at \$14 on March 20th 2013.	

1 Year Price History/Ave. Daily Vol. (mil) for ENTA



Sep Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2012A	--	--	--	--	\$41.7	--	--	--	--	\$1.26	15.6x
2013E	\$27.9A	\$11.0	0.0	0.0	\$38.9	\$1.61A	\$4.36	(\$0.34)	(\$0.34)	(\$0.54)	NM
2014E	--	--	--	--	\$40.0	--	--	--	--	\$0.93	21.2x
2015E	--	--	--	--	--	--	--	--	--	--	NM

Source: Company Information and Leerink Swann LLC Research
Revenues in \$M; GAAP presentation

Please refer to Pages 66 - 68 for Analyst Certification and important disclosures. Price charts and disclosures specific to covered companies and statements of valuation and risk are available at <https://leerink2.bluematrix.com/bluematrix/Disclosure2> or by contacting Leerink Swann LLC Publishing Department, One Federal Street, 37th Floor, Boston, MA 02110.

Enanta Pharmaceuticals, Inc.

All figures in millions of U.S. Dollar, except per share items.

	<u>FY12A</u>					<u>FY13E</u>	<u>FY14E</u>	<u>FY15E</u>
	<u>Sep '12A</u>	<u>1QA</u> <u>Dec '12A</u>	<u>2QE</u> <u>Mar '13E</u>	<u>3QE</u> <u>Jun '13E</u>	<u>4QE</u> <u>Sep '13E</u>	<u>Sep '13E</u>	<u>Sep '14E</u>	<u>Sep '15E</u>
Net Sales	41.7	27.9	11.0	0.0	0.0	38.9	40.0	250.5
SG&A	5.3	1.2	1.2	1.2	1.2	4.6	4.6	5.0
R&D	15.1	4.8	4.8	4.8	4.8	19.2	19.2	20.0
Operating Income	21.3	21.9	5.1	(6.0)	(6.0)	15.1	16.2	225.5
Interest income	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expense	0.0	(0.0)	0.0	0.0	0.0	(0.0)	0.0	0.0
Change in fair value of warrant liability	(0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Income	21.4	22.0	5.1	(6.0)	(6.0)	15.1	16.2	225.5
Taxes		0.0	0.0	0.0	0.0	0.0	0.0	78.9
Income After Taxes	21.4	22.0	5.1	(6.0)	(6.0)	15.1	16.2	146.6
Accretion of redeemable convertible preferred to redemption value	(5.4)	(1.3)	0.0	0.0	0.0	(1.3)	0.0	0.0
Net income attributable to participating securities	(14.7)	(18.8)	0.0	0.0	0.0	(18.8)	0.0	0.0
Net income to common shares	1.4	1.9	5.1	(6.0)	(6.0)	(5.0)	16.2	146.6
<u>EPS</u>								
Basic	\$1.26	\$1.61	\$4.36	(\$0.34)	(\$0.34)	(\$0.54)	\$0.93	\$8.41
Diluted	\$1.13	\$1.45	\$1.45	(\$0.30)	(\$0.30)	(\$0.44)	\$0.81	\$7.33
<u>Common shares</u>								
Basic	1.1	1.2	1.2	17.4	17.4	9.3	17.4	17.4
Diluted	2.5	2.6	2.6	20.0	20.0	11.3	20.0	20.0

Source: Company information, Leerink Swann estimates

ENTA DCF (All numbers in \$MM except per share items, and percentages)

	<u>2015E</u>	<u>2016E</u>	<u>2017E</u>	<u>2018E</u>	<u>2019E</u>	<u>2020E</u>
ABBV Sales	2,373	3,501	3,490	3,168	2,591	1,600
Portion to ABT-450	791	1,167	1,163	1,056	864	533
Royalty rate	14%	16%	16%	15%	15%	13%
Royalty payments	112	183	183	161	125	70
POS %	85%	85%	85%	85%	85%	85%
POS adjusted royalties	96	156	155	137	107	60
Milestone payments	155					
SG&A	5	5	5	5	5	5
R&D	20	20	10	10	10	10
Operating income	226	131	140	122	92	45
Tax rate	35%	35%	35%	35%	35%	35%
Taxes	79	46	49	43	32	16
EBIT	226	131	140	122	92	45
D&A	2	2	2	2	2	2
EBITDA	228	133	142	124	94	47
After tax FCF	149	87	93	81	62	31
Discount period	1.0	2.0	3.0	4.0	5.0	6.0
Discount rate	12%	12%	12%	12%	12%	12%
PV	133	69	66	52	35	16
Total	371					
Platform value	60					
Cash - 2014	135					
EV	566					
F/D Shares	20.0					
Valuation	\$28					

Source: Company information, Leerink Swann estimates



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The Healthcare Investment Bank™

Enanta: Initiation of Coverage With OP

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Enanta Overview



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- We are initiating coverage on ENTA with an Outperform rating and \$28 valuation.
- ENTA is an R&D focused biotechnology company leveraged to the Hepatitis C (HCV) space
 - Significant valuation support in cash and milestones from ABBV
- Lead candidate ABT-450 (partnered with ABBV) is expected to be part of one of the first IFN-free regimens
 - Currently in Phase III for the treatment of HCV
 - HCV is a large multi-billion dollar market – we forecast >\$3B in sales for ABBV's regimen from 2016E-2018E
 - ENTA receives tiered royalties on the sales attributable to ABT-450, and \$195M in pre-commercial milestones
- Key financials: 20M dilutive shares, ~\$120M cash (~\$6/share).

Investment Thesis



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- **ENTA offers an opportunity to participate in the multi-billion HCV market for IFN-free regimen as a small cap but late-stage player.** ENTA is partnered with ABBV on ABT-450, which is the protease inhibitor (PI) in ABBV's all oral HCV treatment regimen which is one of the only two late-stage regimens that have broad genotype-1 activity and anticipated to reach the market in 2015. We are more bullish than the Street on the size of HCV market. ENTA's valuation is based primarily on the initial market for IFN-free regimens therefore ENTA represents a way to participate in the market upside without taking long-term market risks.
- **We believe our market share assumption of 70:30 split for GILD:ABBV in GT-1 patients is supported by the most recent example of HCV protease inhibitor market.** Though we believe GILD will be a fierce competitor, the market is large enough for multiple players. In comparison to the current HCV protease inhibitor market which is split approximately 70:30 between VRTX's Incivek and MRK's Victrelis, the efficacy and convenience advantage for Incivek over Victrelis is arguably bigger than the difference between GILD and ABBV regimens although there does not appear to be a safety / tolerability advantage for ABBV over GILD as Victrelis is at least perceived to hold over Incivek.
- **We believe ENTA's valuation is well supported by potential ABBV milestone payments and royalties on early ABT-450 sales.** ENTA is entitled to tiered double-digit royalties on sales attributable to ABT-450, and we believe there is upside to the stock as ABBV HCV numbers rise to reflect the overall market potential.



Investment Thesis, continued

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- **Productive medicinal chemistry platform could continue to advance clinical candidates.** ENTA currently has three interesting pre-clinical programs that could potentially advance to the clinic in the 2014 timeframe. A MEDACorp key opinion leader (KOL) highlighted the cyclophilin inhibitor (for hepatitis C) as an interesting agent to watch. In addition, given the scarcity in the class, ENTA's nucleotide HCV polymerase inhibitor could generate investor interest as it advances.

Valuation



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- Our ~\$28/share 12-month valuation is derived from a probability-adjusted DCF analysis of ABT-450 royalties as well as expected pre-commercialization milestone payments and platform value.
- We model >\$3B in worldwide sales for ABBV's HCV regimen from 2016 to 2018, with declining revenues in 2019 and 2020 and no revenues afterwards.
 - We model a blended royalty rate of 15-16% for the 1/3 of sales attributable to ABT-450, and apply at 85% probability adjustment.
- We assume \$195M in milestone payments from ABBV, \$135M in YE 2014 cash and \$60M platform value.
- We use a 12% discount rate on after tax cash flows as the royalty payments are already probability adjusted.



Risks to Valuation

- ABBV's Phase III HCV regimen may fail due to either efficacy or safety concerns
- ABBV's HCV program faces competition from GILD, VRTX, BMY (MP), Roche, MRK and other players in the field
- Ritonavir boosting may limit the usage of ABBV's regimen due to drug-drug interactions
- Treatment rates for all oral treatments in HCV may be lower than we and the market anticipate
- Pricing and reimbursement pressures are high in the US, Europe and other geographies and may be a headwind to sales
- Dependent on partners in clinical development and commercialization and in assembling a portfolio of agents to have a competitive IFN-free regimen
 - EDP-239 currently lacks a combination partner as NVS's (OP) alisporivir is on clinical hold.

Pipeline



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Candidate	Mechanism	Indication	Status	Partner	Comments
ABT-450	NS3/4A protease inhibitor	Hepatitis C	Phase III	AbbVie	Part of an all oral HCV regimen
Next generation protease inhibitor	NS3/4A protease inhibitor	Hepatitis C	Phase I	AbbVie	
EDP-239	NS5A inhibitor	Hepatitis C	Phase I	Novartis	
Cyclophilin inhibitor	Cyclophilin inhibitor	Hepatitis C	Preclinical		
Nucleotide polymerase inhibitor	Nucleotide polymerase inhibitor	Hepatitis C	Preclinical		
EDP-788	Biocyclolide antibiotic	MRSA	Preclinical		

Source: Company reports and Leerink Swann



Key Expected Events – Data News Flow

Timing	Event
<u>ABT-450/r</u>	
2013	Phase III data in GT1
2014	NDA filing for IFN-free regimen containing ABT-450
2015	Potential approval
<u>Next-Gen protease inhibitor</u>	
2013	Possible Phase I and proof of concept data
<u>EDP-239</u>	
2013	Possible Phase I and proof of concept data
<u>Cyclophilin inhibitor program</u>	
2013	Expect to advance into preclinical studies
<u>Nucleotide polymerase program</u>	
2013	Expect to advance into preclinical studies
<u>EDP-788</u>	
1H:14	Expect to initiate Phase I
<i>Source: Company Reports and Leerink Swann</i>	

Intellectual Property



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- **ABT-450:**
 - Pending composition and use patent claims, which will continue at least into 2029 assuming all such patents issue
- **EDP-239**
 - One issued US patent and 2 pending US patent applications
 - Total patent estate in the NS5A inhibitor arena consists of 5 issued US patents and 20 pending US patent applications
 - US patent protection for composition and use claims expected to extend at least into 2030
- **Cyclophilin inhibitor**
 - One issued US patent related to a range of cyclophilin inhibitors and 7 pending US patent applications as of December 31, 2012



KEY INVESTMENT CONSIDERATIONS



AbbVie Partnership

Partnership Terms



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- Entered into a worldwide collaboration with AbbVie (Abbott at the time) to develop and commercialize HCV NS3 and NS3/4A protease inhibitors for Hepatitis C in November 2006
- ABBV has funded all R&D and is responsible for all costs associated with development, manufacturing and commercialization of ABT-450
- ENTA received \$57.2M upon entry into the agreement and ABBV's simultaneous purchase of preferred stock
- Received \$40M milestone payment in December 2010 following the completion of Phase IIa studies involving ABT-450

Partnership Terms (cont.)



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- Received \$15M milestone payment in December 2012 for first patient dosed in the Phase III development program involving ABT-450
- Remaining milestones of \$195M for ABT-450
 - \$40M from achievement of regulatory filing milestones
 - \$155M for approvals of HCV regimens containing ABT-450 in selected world markets
- Payments of up to \$80M for each follow-on protease inhibitor product

Royalties



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- ENTA will receive tiered royalties ranging from a low double-digit rate up to 20% on ABBV net sales, applicable to the collaboration's protease inhibitor.
- For a combination product, the royalties will be adjusted on a country-by-country and product-by-product basis to "reflect a good faith determination of the relative value of each pharmaceutically active ingredient, based on a fair market value calculation".
- Thus if a regimen contains 3 direct antiviral agents (DAA) (as in the case with the current Phase III development program) – 1/3 of the regimen's sales will be applicable to the protease inhibitor.
 - If the regimen contained only 2 DAA, then half the sales would be applicable to the protease inhibitor.

Co-development option



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- Under the terms of the agreement ENTA holds an option to fund 40% of the US development costs of the PI and US commercialization efforts in exchange for 40% of any US profits applicable to any PI that achieves commercialization.
- This option must be exercised within a specified period after the successful completion of a Phase IIa trial.
- If the option is exercised, the milestone schedule is different and no royalties will be received on US sales.
 - ENTA did not execute its option to the co-development for ABT-450 but retains such an option for additional protease inhibitors in development.



ABT-450

(HCV Protease Inhibitor)

Protease Inhibitors (PI) Have High Levels of Efficacy, But Resistance is Often a Problem



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Comparison of DAA Profiles

	DAA				
	PI, 1st Generation	PI, 2nd Generation	NS5A Inh	Nuc NS5B Inh	Nonnuc NS5B Inh
Resistance Profile	●	●	●	●	●
Pangenotypic Efficacy	●	●	●	●	●
Efficacy	●	●	●	●	●
Adverse Events	●	●	●	●	●
Drug-Drug Interactions	●	●	●	●	●

● Good profile ● Average profile ● Least favorable profile

Adapted from: Farnik H, et al. Antivir Ther. 2012;17:771-783.

DAA = Direct anti-viral agent

Source: Clinical Care Options, "Seizing the Opportunity: Optimizing Today's HCV Therapies, Exploring Their Role in Tomorrow's Paradigm"

Protease Inhibitors Often Have Overlapping Resistance Profiles



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Cross resistance table of mutations at amino acid positions within the HCV NS3/4A protease associated with resistance to protease inhibitors. The blue boxes represent first generation linear protease inhibitors, the green boxes represent first generation macrocyclic protease inhibitors and the purple boxes represent second generation protease inhibitors.

	V36A/M	T54S/A	V55A/K	Q80R/K	R155K/T/Q	A156S/D/T/V	D168A/V/T/H	V170A/T
Telaprevir (linear), GT1a	M				K/T			
Telaprevir (linear), GT1b	A				Q			
Boceprevir (linear), GT1a	A/M				K/T			
Boceprevir (linear), GT1b								
Faldaprevir (linear)								
Danoprevir (macrocyclic)								
Vaniprevir (macrocyclic)								
Simeprevir (macrocyclic)								
Asunaprevir (macrocyclic)								
GS-9451/9256 (macrocyclic)					*	*	*	
ABT-450 (macrocyclic)								
MK-5172 (macrocyclic)								
ACH-1625 (macrocyclic)							*	

*mutations associated with resistance *in vitro*; GT1a, HCV genotype 1a; GT1b, HCV genotype 1b

Protease Inhibitors in Development



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NS5A Inhibitors				
Name	Company	Status	Dosing	Ongoing and Upcoming Trials
Daclatasvir (BMS-790052)	Bristol-Myers Squibb	Phase III	QD	In Phase III with ASV for GT1b patients in Japan with data anticipated in mid '13
GS-5885	Gilead	Phase III	QD	Formulated into a fixed dose combination with SOF - currently in Phase III
ABT-267	AbbVie	Phase III	QD	Co-formulated with ABT-450/r in Phase III studies
ACH-3102	Achillion	Phase II	QD	Currently being studied with RBV in GT1b IL28B CC patients
GSK2336805	GlaxoSmithKline	Phase II	QD	To be studied in an all oral combination with VX-135
MK-8742	Merck	Phase II	QD	Phase II in combination with MK-5172 to begin
ACH-2928	Achillion	Phase I		
EDP-239	Enanta/Novartis	Phase I		Novartis in-licensed the compound in Feb 2012
PPI-668	Presidio	Phase I	QD	Phase I data was presented at AASLD 2012
PPI-461	Presidio	Phase I	QD	Phase I data was presented at AASLD 2011
IDX719	Idenix	Phase I	QD or BID	To start combination study with simeprevir in 1H:13
GS-5816	Gilead	Phase I	QD	Pan-genotypic NS5A compound

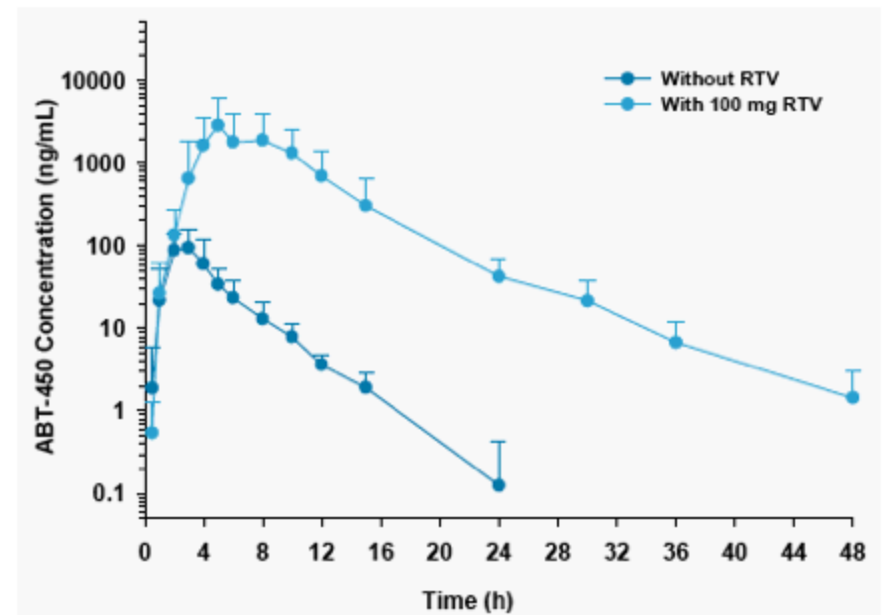
ABT-450/r is a “Cornerstone” Agent, as Ritonavir Boosting Improves the Resistance Profile



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- Though protease inhibitors do not have a very high genetic barrier to resistance, with ritonavir boosting, the resistance profile of ABT-450 is improved due to high exposure.
- Single dose data reveal that co-administration of ritonavir with ABT-450 increases the peak and average levels in the body by 50-60 fold -- levels sufficiently high to inhibit most mutant variants.

Effect of 100mg Ritonavir Co-administrated with 300mg ABT-450



Resistant Variants Were Not Seen for ABT-450/r After 3 Days of Dosing



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- Resistant variants were not seen for ABT-450/r at higher doses after 3 days of dosing.
- Resistant variants to ABT-450/r were seen at 100/100mg and 50/100mg but not 200/100mg.

Sensitivity of Patient Samples from Subjects Dosed with ABT-450/r

ABT-450/r Dose	Subject	GT	EC ₅₀ (nM)		Fold Change
			Day 1	Day 4	
200/100 mg	A	1a	1.31	1.14	0.9
	B	1a	1.36	1.06	0.8
	C	1a	3.11	3.23	1.0
	D	1a	2.42	2.57	1.1
	E	1a	0.58	No product	
	F	1b	0.04	No product	
	G	1a	2.68	No product	
100/100 mg	H	1a	1.55	10.2	6.6
	I	1a	1.43	No product	
	J	1b	0.04	15.5	368
	K	1b	0.07	No product	
	L	1a	2.80	8.84	3.2
	M	1a	0.91	No product	
	N	1a	0.58	0.64	1.1
50/100 mg	O	1b	0.05	No product	
	P	1a	0.81	8.88	11
	Q	1a	0.68	No product	
	R	1a	5.97	68.7	12
	S	1b	0.06	No product	
	T	1a	0.45	No product	
	U	1a	1.52	11.5	7.6
	V	1a	1.01	1.69	1.7
	W	1a	1.54	9.78	6.4

Due to the low viral titer at Day 4, HCV RNA could be amplified for resistance testing in only 13 of the 24 subjects

Samples from 7 subjects (in yellow) showed at least a 3-fold EC₅₀ fold shift at day 4 relative to their baseline EC₅₀ value
 – All 7 of these subjects were in the 50/100 mg or 100/100 mg dose groups

Resistant Strains to ABT-450 Have Poor Replication Fitness



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- GT1a mutations at the 155 and 168 location can cause substantial shifts (up to 115 folds) in EC50 levels.
- However, these virus variants tend to be less fit than the Wild Type (WT) virus, as can be seen from the replication capacity column .
- At the high dose and when boosted with ritonavir, there appears to be enough ABT-450 to suppress the resistant variants.

Fold Change of EC50 for ABT-450/r in the Replicon System Against Specific Mutations

Replicon	Mutant	EC ₅₀ (nM)	Fold Change	Rep. Capacity
GT 1a	WT	1.19		1
	R155G	19.2	16	0.02
	R155K	51.5	43	0.27
	D168A	70.4	59	0.35
	D168V	136	115	0.04
GT 1b	WT	0.07		1
	D168V	17.5	257	1

*WT = wild-type virus. Rep. Capacity = replication capacity, a measure of how fit the virus is compared to WT virus

Source: EASL 2011, Poster Presentation – “Genotypic and Phenotypic Characterization of NS3 Variants Selected in HCV-Infected Patients Treated with ABT-450”

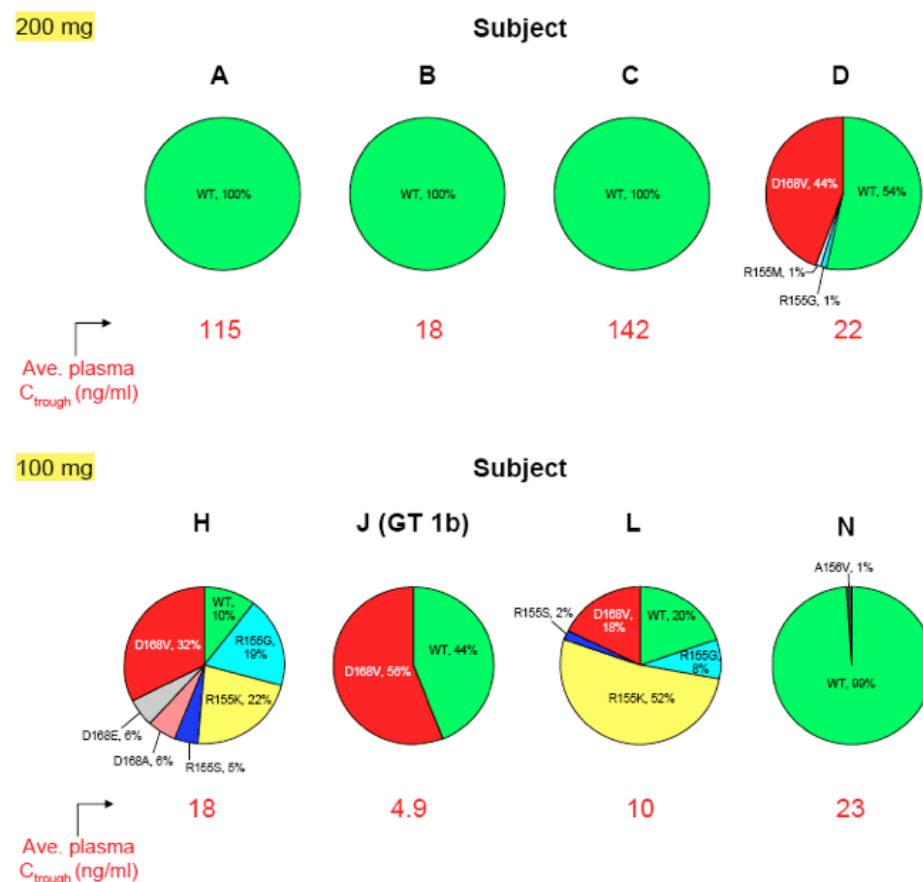
ABT-450 Does Not Appear to Select for Resistance Variants



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- The 100mg dose of ABT-450 did not lead to high enough levels of drug to inhibit resistance variants, and thus these variants were common after 3 days of monotherapy dosing.
- The 200mg dose of ABT-450 had 3 of 4 patients with only WT virus in the clonal sequencing analysis.
- The high levels of ABT-450 suppress resistant variants so that the WT virus is the predominant virus in the patients after 3 days of monotherapy.

Clonal Sequence Analysis Obtained After 3 Days of Monotherapy



Other Protease Inhibitors Appear Different in Ability to Suppress Resistant Variants



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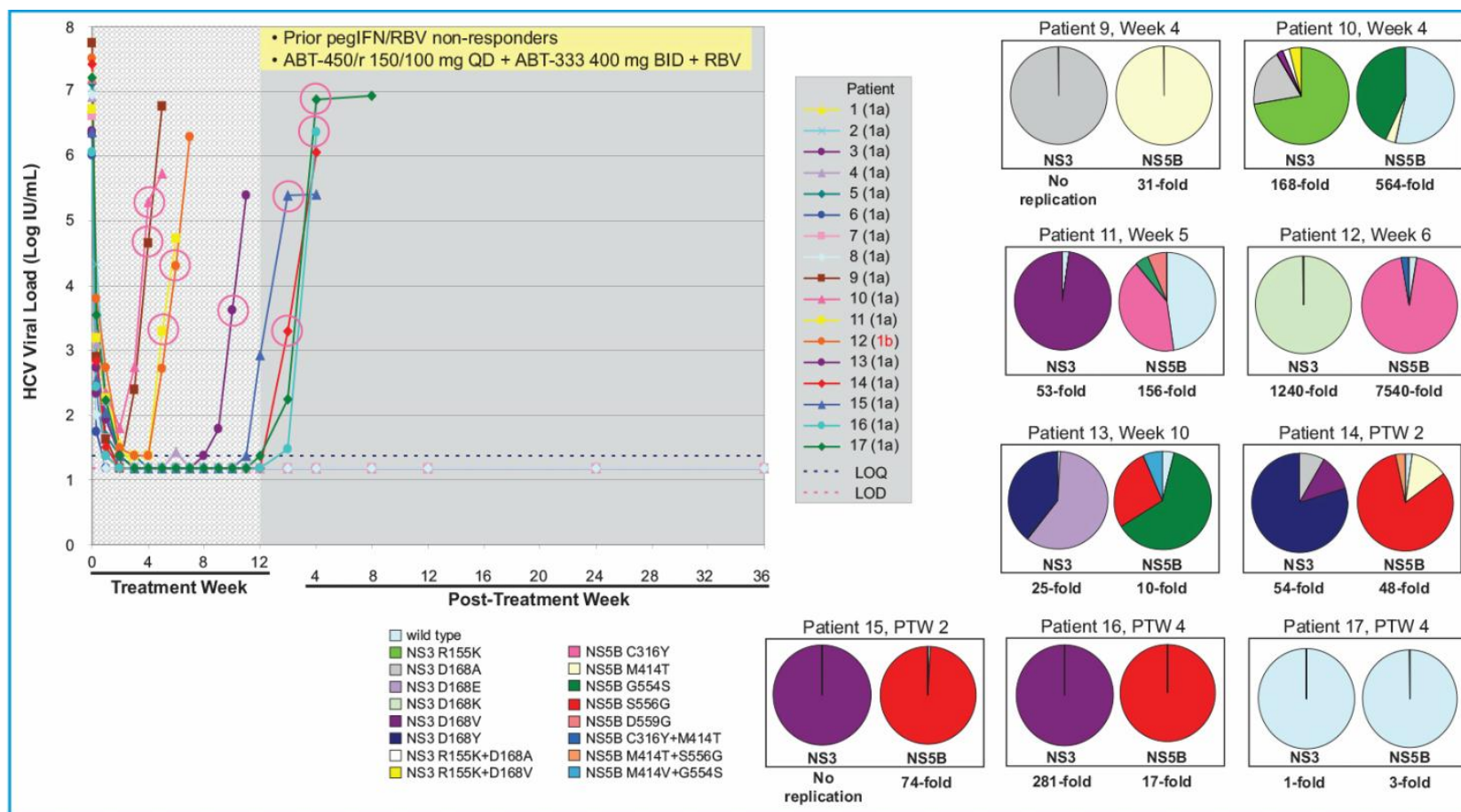
- We do not know the key signals of a "cornerstone" agent in HCV, but conversations with KOLs suggest that a potent agent that is able to suppress the emergence of resistant variants with monotherapy dosing as ABT-450/r did is a good metric.
- If the test is lack of resistant variants selected after a short course of protease inhibitor monotherapy, as one MEDACorp KOL suggested, the data on other protease inhibitors such as MK-5172, sovalprevir or simeprevir show a different profile and detectable resistant variants.
 - With the caveat that these are different studies, with different dosing periods and sequencing assays

Resistant Variants Were Seen with ABT-450/r in Longer Term Dosing



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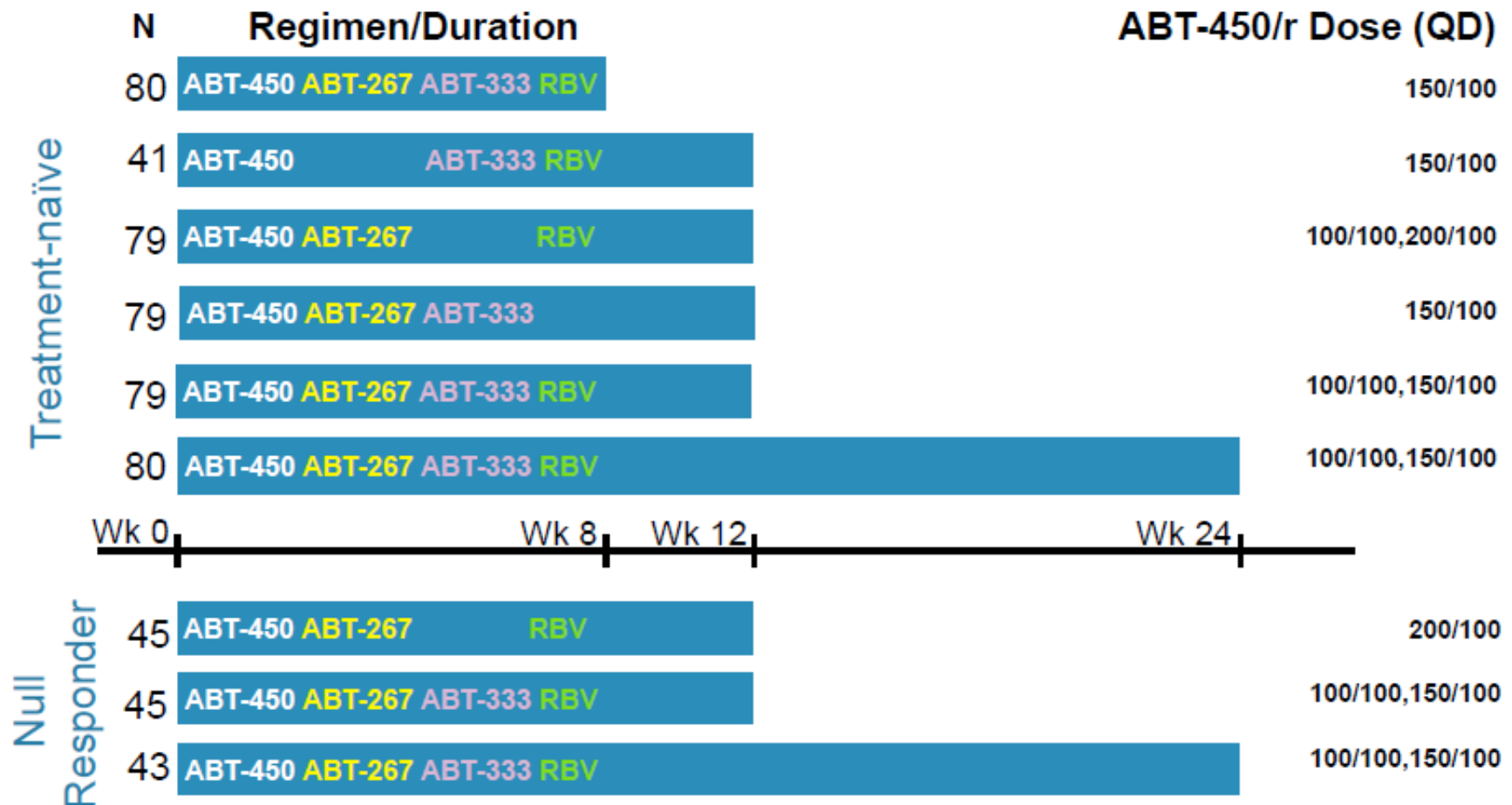
Prior IFN + RBV Non-Responders in the CO-PILOT Study Had Breakthrough / Relapsers with Predominantly Mutant Strains of HCV -- Double Point Mutations Were Also Seen





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AVIATOR – Phase IIb Trial Design



ABT-267 25mg QD; ABT-333 400mg BID; RBV weight-based 1000-1200 mg daily dose divided BID
 All patients to be followed through 48 weeks post-treatment

AVIATOR Baseline Characteristics



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Duration	Treatment-Naïve Patients					Null Responders	
	8 wks	12 wks				12 wks	
Regimen	450/r 267	450/r	450/r	450/r	450/r	450/r	450/r
	333	333	267	267	267	267	267
	RBV	RBV	RBV	333	333	RBV	333
	(N=80)	(N=41)	(N=79)	(N=79)	(N=79)	(N=45)	(N=45)
Male, %	57.5	43.9	57.0	57.0	55.7	60.0	62.2
White race, %	85.0	85.4	77.2	81.0	79.7	77.8	84.4
Age, Mean	50.1	50.8	50.1	48.3	50.2	50.6	49.8
IL28B CC, %	27.5	34.1	26.6	29.1	27.8	2.2	4.4
Baseline log ₁₀ HCV RNA, Mean	6.6	6.6	6.5	6.5	6.5	6.6	6.6
GT1a, %	70.0	70.7	65.8	67.5	68.4	59.1	62.2

AVIATOR Results – High SVR Rates Were Seen in Both Treatment Naïve Patients and Null Responders



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Duration	Treatment-naïve Patients				Null Responders		
	8 wks	12 wks			12 wks		
Regimen	450/r 267 333 RBV	450/r 267 333 RBV	450/r 267 333 RBV	450/r 267 333 RBV	450/r 267 333 RBV	450/r 267 333 RBV	450/r 267 333 RBV
Number dosed	80	41	79	79	79	45	45
Breakthroughs (N)	0	1	1	1	0	0	3
Relapses (N)	9	4	5	5	1	5	0
Lost to follow-up or withdrawn consent prior to SVR ₁₂	1	1	2	4	1	0	0
SVR ₁₂ rate (ITT) ^a , % (n/N)	87.5% (70/80)	85.4% (35/41)	89.9% (71/79)	87.3% (69/79)	97.5% (77/79)	88.9% (40/45)	93.3% (42/45)
SVR ₁₂ rate (Observed data) ^b , % (n/N)	88.6% (70/79)	87.5% (35/40)	92.2% (71/77)	92.0% (69/75)	98.7% (77/78)	88.9% (40/45)	93.3% (42/45)

^aITT: Intent-to-treat population, includes all patients who received at least one dose of study drug

^bObserved data: Excludes patients with values missing for reasons other than virologic failure or discontinuation due to AEs

AVIATOR – The 3 DAA Regimen Containing ABT-450 was Well Tolerated



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Moderate-to-Severe AEs Possibly or Probably Related to Study Drug with >5% Incidence in Any Arm

Duration	Treatment-naïve Patients					Null Responders	
	8 wks		12 wks			12 wks	
Regimen	450/r	450/r	450/r	450/r	450/r	450/r	450/r
	267		267	267	267	267	267
	333	333		333	333		333
	RBV	RBV	RBV		RBV	RBV	RBV
Number dosed	80	41	79	79	79	45	45
Any AE, n (%)	20 (25.0)	12 (29.3)	14 (17.7)	10 (12.7)	19 (24.1)	7 (15.6)	11 (24.4)
Fatigue	7 (8.8)	2 (4.9)	3 (3.8)	3 (3.8)	2 (2.5)	1 (2.2)	3 (6.7)
Headache	3 (3.8)	4 (9.8)	3 (3.8)	0	1 (1.3)	0	1 (2.2)
Insomnia	2 (2.5)	1 (2.4)	1 (1.3)	0	4 (5.1)	1 (2.2)	0
Nausea	1 (1.3)	2 (4.9)	1 (1.3)	0	2 (2.5)	0	1 (2.2)
Bilirubin increase	0	0	1 (1.3)	0	2 (2.5)	0	0

ABBV Phase III Development Program with Expected Data Readout in 2013



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3DAA + RBV	SAPPHIRE I	<ul style="list-style-type: none"> • Naïve genotype 1a and 1b patients • 3 DAA + RBV (n=600) 	<ul style="list-style-type: none"> • 12-week duration (placebo controlled)
	SAPPHIRE II	<ul style="list-style-type: none"> • Experienced genotype 1a and 1b patients • 3 DAA + RBV (n=400) 	<ul style="list-style-type: none"> • 12-week duration (placebo controlled)
RBV-free	PEARL II	<ul style="list-style-type: none"> • Experienced genotype 1b patients • 3 DAA +/- RBV (n=200) 	<ul style="list-style-type: none"> • 12-week duration
	PEARL III	<ul style="list-style-type: none"> • Naïve genotype 1b patients • 3 DAA +/- RBV (n=400) 	<ul style="list-style-type: none"> • 12-week duration
	PEARL IV	<ul style="list-style-type: none"> • Naïve genotype 1a patients • 3 DAA +/- RBV (n=300) 	<ul style="list-style-type: none"> • 12-week duration
Special Pops.	TURQUOISE I*	<ul style="list-style-type: none"> • HIV and HCV co-infected; HCV naïve and experienced genotype 1a and 1b patients • 3 DAA + RBV (n=300) 	<ul style="list-style-type: none"> • Duration ranging 12 and 24-weeks
	TURQUOISE II	<ul style="list-style-type: none"> • Compensated cirrhotic naïve and experienced genotype 1a and 1b patients • 3 DAA + RBV (n=300) 	<ul style="list-style-type: none"> • Duration ranging 12 and 24-weeks

* TURQUOISE I is not part of the initial registration package

Note: RBV-free study names were updated on 11.13.12



HCV Market Share

Comparison of GILD and ABBV Regimens



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- Based on existing data, both regimens may be able to achieve 90%+ efficacy with good tolerability in GT1 patients.
- GILD could be dosed once daily if no RBV.
 - ABBV regimen requires ABT-333, which is dosed twice daily.
- ABBV regimen contains ritonavir, which has many drug-drug interactions.
 - Patients on concomitant medications for other co-morbidities will have to be carefully managed due to the ritonavir component.

GILD's Regimen Has Less Pill Burden and Could be Dosed Once Daily

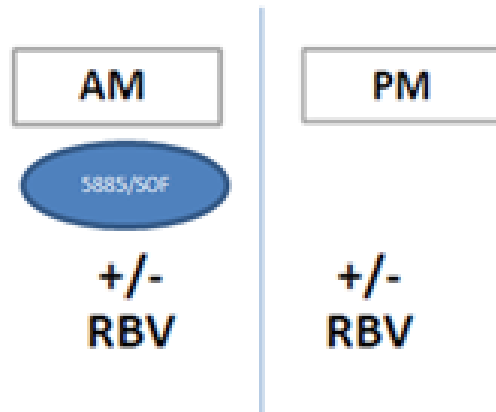


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Comparison of GILD and ABBV's HCV Regimens

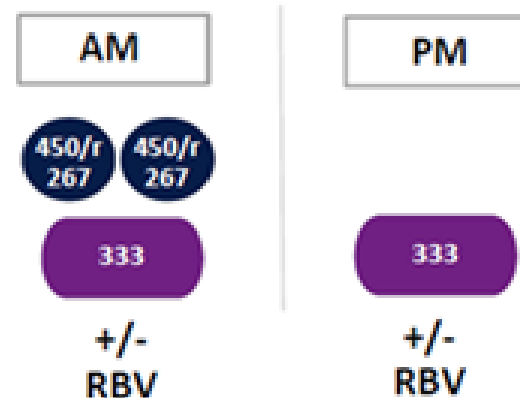
GILD's Regimen

- 1-3 pills per day
- 490mg per day (w/o RBV)



ABBV's Regimen

- 4-6 pills per day
- 775mg per day (w/o RBV)



SOF = sofosbuvir, 5885 = GS-5885, 450/r = ABT-450/r, 267 = ABT-267, 333 = ABT-333

We Model a 70:30 Market Share Split Between GILD and ABBV



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- Our market share assumption is based on the current market share split of Incivek/Victrelis today.
 - Victrelis maintains ~30% market share today despite inferior efficacy and duration of treatment.
- Physician feedback is somewhat mixed on expected market share split.
 - KOLs we spoke to generally expect GILD to have a dominant position (e.g., ~80% share).
 - MEDACorp survey results suggest that market share may be fairly equal, assuming similar efficacy, duration and tolerability. This survey represents an early read of physician expectations which could still change as Phase III data become available.
- Reducing ABBV market share from 30% to 20% would reduce our valuation from \$28 to \$25.

Source: Company reports, Leerink Swann analysis



Based on Currently Available Data, GILD's Advantage Appears Primarily in Convenience, Lack of DDI

	<u>GILD</u>	<u>ABBV</u>	<u>Advantage</u>
Duration of treatment	12 weeks (also testing shorter duration)	12 weeks	Likely Tie
Safety/tolerability	Generally well tolerated, some cases of headache, anemia, depression	Fatigue, headache, insomnia, nausea	Likely Tie
Efficacy - naïve	100% (25/25)	88% (70/80)	Likely Tie
Efficacy - prior null	100% (9/9)	93% (42/45)	Likely Tie
Drug-Drug Interactions	Few	High due to ritonavir boosting	GILD
Convenience	1 pill once a day, +/- RBV BID	4-6 pills per day, dosed twice daily	GILD
Prior commercial presence in hepatology	Yes, has a portfolio of HBV and HIV products	Limited, sells HIV products	GILD
<i>Sources: Gane, CROI 2013; Krowdley, AASLD 2012, Leerink Swann estimates</i>			

DDI= drug-drug interaction

The Advantage of Incivek over Victrelis Appears Bigger



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	Incivek	Victrelis	Advantage
Duration of treatment - naïve	RGT 12+12 or 12+36 weeks	RGT, 24 week triple or 36 + 12 weeks*	Incivek
Duration of treatment - prior relapsers	RGT 12+12 or 12+36 weeks	RGT, 36 week triple or 36 + 12 weeks*	Incivek
Duration of treatment - prior partial responders	12 + 36 week	RGT, 36 week triple or 36 + 12 weeks*	Incivek
Duration of treatment - null	12 + 36 weeks	48 week triple*	Incivek
Safety/tolerability	Black box warning for skin/rash including fatal cases and Stevens Johnson Syndrome. Other AEs include pruritis, anemia, nausea, hemorrhoids, diarrhea, anorectal discomfort, dyseusia, fatigue, vomiting and anal pruritis	Fatigue, anemia, nausea, headache and dysgeusia	Victrelis
Efficacy - naïve	79%	63%	Incivek
Efficacy - prior relapsers	86%	70%	Incivek
Efficacy - prior partial responders	59%	40%	Incivek
Efficacy - prior null	32%	No data in prospectively defined null responders	Incivek
Convenience	q8h for up to 12 weeks	TID for up to 36 weeks	Incivek
Prior commercial presence in hepatology	None	Yes, MRK sales force for Peg-Intron	Victrelis
<i>RGT = response guided therapy, *Victrelis includes a 4 week Peg-IFN/RBV lead in period</i>			
<i>Sources: Incivek prescribing information, Victrelis prescribing information, Leerink Swann estimates</i>			

MEDACorp Survey of 48 US and EU Physicians Suggests that Duration is the Most Important Differentiating Factor



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Regimen A	Regimen B	Strongly prefer regimen A	Modestly prefer regimen A	No significant difference
Once a day oral regimen	Twice a day oral regimen	40.0%	40.0%	20.0%
One pill once a day	4 pills once a day	74.3%	14.3%	11.4%
A regimen without ribavirin	A regimen that includes ribavirin	60.0%	25.7%	14.3%
A regimen without ritonavir	A regimen that includes 100mg/day ritonavir co-formulated as the pharmacological booster	42.9%	31.4%	25.7%
Two active antiviral drugs in the regimen	Three active antiviral drugs in the regimen but dosing and pill burden are comparable	31.4%	22.9%	45.7%
12-week treatment	24-week treatment	91.4%	2.9%	5.7%
8 week-treatment	12-week treatment	54.3%	37.1%	8.6%
A pan-genotypic regimen that works in all genotypes	Genotype-specific regimens	54.3%	22.9%	22.9%

Results were similar between US and EU physicians

Assuming Similar Efficacy, Duration and Side Effects, Survey Respondents Favor GILD Regimen Slightly Over AbbVie



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	Scenario 1: Neither Regimen Has RBV	Scenario 2: Both Regimens Have RBV	Scenario 3: AbbVie regimen contains RBV while Gilead regimen does not
AbbVie regimen:	ABT-450 / ritonavir QD, ABT-267 QD, ABT-333 BID	ABT-450 / ritonavir QD, ABT-267 QD, ABT-333 BID, ribavirin BID	ABT-450 / ritonavir QD, ABT-267 QD, ABT-333 BID, ribavirin BID
Gilead regimen:	Sofosbuvir / GS-5885 fixed dose combination QD	Sofosbuvir / GS-5885 fixed dose combination QD, ribavirin, BID	Sofosbuvir / GS-5885 fixed dose combination QD
Share of AbbVie	47.2%	44.1%	38.1%
Share of Gilead	52.8%	55.9%	61.9%

Results were similar between US and European respondents



Novartis Collaboration

Collaboration Agreement



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- In February 2012, ENTA entered into a collaboration and license agreement with Novartis granting them exclusive worldwide rights to develop, manufacture and commercialize EDP-239, their lead NS5A inhibitor for HCV.
- Novartis is responsible for all costs for development of the lead candidate, EDP-239.
- Novartis is also responsible for funding efforts to develop follow-on NS5A inhibitors.
- ENTA received an upfront payment of \$34.4M in March 2012 and \$11M milestone payment in January 2013 for the initiation of a Phase I study for EDP-239.

Economics



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- ENTA is eligible to receive \$395M in remaining milestone payments for specified clinical, regulatory and commercial milestones.
 - Milestone of \$15M due upon initiation of a Phase II combination study for EDP-239
- ENTA will receive tiered royalties ranging on a blended basis from low double digits up to the high teens on Novartis' net sales allocable to each to each of the collaboration NS5A inhibitors.
- Co-detail right for a collaboration product
 - Must be exercised prior to commercial launch, and negotiate and finalize co-detailing agreement with Novartis on reasonable and customary terms



EDP-239

(NS5A Inhibitor for HCV)

NS5A Inhibitors are Very Potent and Generally Tolerable, But Have Low Barriers to Resistance



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- Similar to many direct anti-viral agents(DAA), NS5A inhibitors are more prone to the development of resistance in GT1a (vs. GT1b).
 - These resistant variants often reduce the sensitivity of the drug by more than 100 fold, leading to breakthrough and relapses in patients.
 - These variants are often very fit and replicate efficiently.
- NS5A inhibitors have picomolar EC50 (a measure of amount of drug needed to inhibit virus), compared with nanomolar for other agents – thus doses for NS5A inhibitors are often <100mg compared with hundreds of mg for other classes of DAAs.

Highly Resistant Strains of Virus are Often Seen for NS5A Inhibitors in GT1a



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GT1a single mutations				
	<u>~1x</u>	<u>~1x-10x</u>	<u>~10x-100x</u>	<u>>100x</u>
GS-5885			M28T, Q30H	Q30E, Q30R, L31M, Y93C, Y93H
GS-5816			L31M, Y93C	
ABT-267			M28V	M28T, Q30R, H58D, Y93C, Y93H, Y93N
ACH-3102		H58D	M28T, Q30E, Q30K, Y93C	Y93H, Y93N, Y93R
DCV**	M28V, H58P		H58D	M28T, Q30H, Q30R, Q30E, Q30K, Y93C, Y93H, Y93N, L31M, L31V
GSK2336805^^	M28V			M28T, Q30H, Q30K, Q30R, L31M, L31V, Y93C
IDX719	K24E	Q30R	Q30H, L31F, Y93C	M28T, Q30E, Q30K, L31M, L31V, P32L, Y93H, Y93N

Sources: Bilello, 7th international workshop on HCV 2012; Bechtel, EASL 2011; ACHN Analyst Day Presentation; Cheng, EASL 2012; Krishnan AASLD 2012, Cheng EASL 2013

**DCV mutants seen clinically may be double or triple point mutations; ^^GSK805 variants seen after single dose

Red = seen in patients at clinically effective doses;

NS5A Inhibitors in Development



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Name	Company	Status	Dosing	Ongoing and Upcoming Trials
Daclatasvir (BMS-790052)	Bristol-Myers Squibb	Phase III	QD	In Phase III with ASV for GT1b patients in Japan with data anticipated in mid '13
GS-5885	Gilead	Phase III	QD	Formulated into a fixed dose combination with SOF - currently in Phase III
ABT-267	AbbVie	Phase III	QD	Co-formulated with ABT-450/r in Phase III studies
ACH-3102	Achillion	Phase II	QD	Currently being studied with RBV in GT1b IL28B CC patients
GSK2336805	GlaxoSmithKline	Phase II	QD	To be studied in an all oral combination with VX-135
MK-8742	Merck	Phase II	QD	Phase II in combination with MK-5172 to begin
ACH-2928	Achillion	Phase I		
EDP-239	Enanta/Novartis	Phase I		Novartis in-licensed the compound in Feb 2012
PPI-668	Presidio	Phase I	QD	Phase I data was presented at AASLD 2012
PPI-461	Presidio	Phase I	QD	Phase I data was presented at AASLD 2011
IDX719	Idenix	Phase I	QD or BID	To start combination study with simeprevir in 1H:13
GS-5816	Gilead	Phase I	QD	Pan-genotypic NS5A compound

Source: Company reports, Clinicaltrials.gov

EDP-239 is a Potent NS5A Inhibitor Similar to Other Agents in the Class



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Potency of NS5A inhibitors			
	GT1a (pM)	GT1b (pM)	GT1a/GT1b
EDP-239	31	7	4x
DCV	20	6	3x
ACH-3102	20	7	3x
GS-5885	34	4	9x
ABT-267	14	5	3x
IDX719	6	2	3x
GSK2336805	44	8	5x
MK-8742	4	3	1x
PPI-461	200	10	20x

Source: ENTA April 2013 Presentation; Krishnan, AASLD 2012 ; ACHN Analyst Day 2012 slides; Cheng, EASL 2012; Huang, AASLD 2011; Betchel, EASL 2011; Liu, EASL 2012 ; Zhou, 7th Int'l Workshop on Clinical Pharmacology of Hepatitis Therapy

EDP-239 is the Lead NS5A Inhibitor in the Novartis Collaboration



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- Currently in Phase I studies
 - Initiated in November 2012
- Good oral bioavailability of ~100%, 41% and 34% in rats, dogs and monkeys respectively
- QD dosing expected based on a long half-life of 13 hours
- In preclinical models, synergistic with other direct antiviral agents
- Low potential for drug-drug interaction
- Preferential targeting to the liver



CYCLOPHILIN INHIBITOR PROGRAM

Cyclophilin Inhibitors Have High Barriers to Resistance



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- ENTA's cyclophilin inhibitor program is preclinical, and wholly owned.
- Has improved potency compared to NVS's alisporivir (another cyclophilin inhibitor)
 - Alisporivir is currently on clinical hold by the FDA due to pancreatitis
- ENTA intends to select a candidate for safety studies in 2013.

ENTA's cyclophilin inhibitor candidate EDP-546 has improved properties over alisporivir



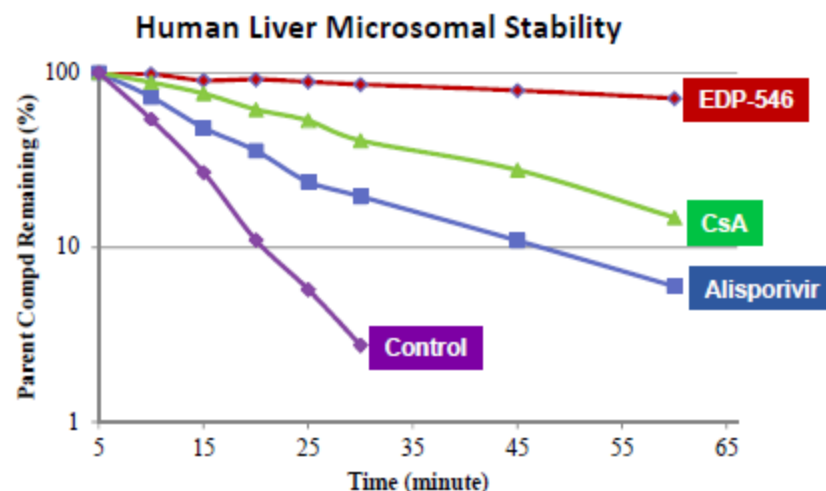
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Table 2. EDP-546 is a potent inhibitor of HCV replication with nM activity in the presence or absence of 40% human serum

Compound (nM)	EC ₅₀ (10%FBS)		EC ₅₀ (10%FBS + 40% HS)		EC ₅₀ Fold Shift	
	HCV 1a	HCV 1b	HCV 1a	HCV 1b	HCV 1a	HCV 1b
EDP-546	67.6 ± 25.6	66.9 ± 7.2	62.8 ± 5.8	51.5 ± 6.0	0.9	0.8
Alisporivir	95.0 ± 33.4	63.2 ± 5.7	214.6 ± 37.8	171.8 ± 39.3	2.3	2.7

- EDP-546 CC₅₀ >25 µM in replicon cells.
- EDP-546 EC₅₀ does not shift in the presence of human serum.

Figure 1. EDP-546 is more metabolically stable than Alisporivir in liver microsomes across different species



Source: Jiang et al, AASLD 2012 poster

ENTA's cyclophilin inhibitor candidate EDP-546 has improved properties over alisporivir



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Table 7. EDP-546 has minimal inhibitory effects on bilirubin transporters

Transporter	IC ₅₀ , μ M	
	EDP-546	Alisporivir
MRP2	66.5	0.6
OATP1B1	1.4	0.4

- Inhibitions of MRP2 and OATP1B1 can result in direct and indirect bilirubin elevations, and jaundice.
- EDP-546 has minimal inhibitory effects on MRP2 and OATP1B1, suggesting it has less potential to cause treatment-associated hyperbilirubinemia in humans.

Projected Human Plasma PK			
Dose	200 mg	400 mg	600 mg
C _{max} (ng/mL)	77	154	231
C ₂₄ (ng/mL)	89	178	267
AUC ₀₋₂₄ (ng-hr/mL)	1.7	3.3	5.0
T _{1/2} (hr)	70	70	70

pH	Solubility, mg/mL	
	Alisporivir	EDP-546
1—4	--	>25
5	0.015	9.4
6	--	4.0
7	0.007	0.36
8	0.007	0.16

- EDP-546 has significantly improved aqueous solubility over Alisporivir and CsA.
- PK/PD modeling suggests efficacious dose of EDP-546 is \leq 200 mg once daily in humans.
- At 200 mg, the projected plasma C₂₄ level in humans is greater than the serum-adjusted GT-1a EC₅₀. Taking into account a high liver to plasma ratio, the multiple is \geq 100x in the target organ of liver.



NUCLEOTIDE INHIBITOR PROGRAM

Nucleotide Polymerase Inhibitor Program



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- ENTA's nucleotide polymerase inhibitor program is preclinical, and wholly owned.
- Selecting for compounds with high antiviral activity and reduced side effects
 - Nucleotide polymerase inhibitors have high antiviral activity and high genetic barrier to resistance, but safety is a key concern
- ENTA intends to select a candidate for safety studies in 2013.



BICYCLOLIDE ANTIBIOTICS

EDP-788 is ENTA's Lead Bicyclolide Antibiotic Candidate



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- ENTA has created a new family of macrolide antibiotic called Bicyclolides (bridged macrolides) that overcome resistance and possess a potentially significantly improved profile to existing macrolides.
- Main focus of the work is on Gram-positive pathogens including MRSA and other *Staph aureus* bacteria resistant to currently marketed macrolides.
- EDP-788 is a prodrug, which is inactive until it is converted in the body into an active compound: EDP-322.
 - Preclinical safety studies performed with EDP-322 present no significant concerns.
 - Phase I adverse events with EDP-322 were limited to minor gastrointestinal effects due to the inadequate water solubility of the drug which would not be expected with the water soluble EDP-788.
 - IND enabling studies for EDP-788 are in progress, and initiation of clinical trials is planned for the first half of 2014 .
 - Preclinical development of EDP-788 is funded under contract with the NIAID, with potential for further NIAID funding of early clinical development.



MANAGEMENT

CEO – Jay Luly Biography



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- Dr. Luly joined Enanta in July 2003.
- Prior to joining Enanta, Dr. Luly was an Entrepreneur in Residence at Oxford Bioscience Partners. Before joining Oxford in March 2002, Dr. Luly held the positions of Senior Vice President, Research and Development Operations and Senior Vice President, Discovery Strategy and Operations at Millennium Pharmaceuticals following Millennium's merger with LeukoSite, Inc., where he had served as Senior Vice President, Drug Discovery and Preclinical Development. Prior to joining LeukoSite, he held a number of senior drug discovery positions at Abbott Laboratories from 1983 to 1997.
- Dr. Luly received a B.S. from the University of Illinois, Urbana/Champaign and a Ph.D. in synthetic organic chemistry from the University of California, Berkeley. Dr. Luly currently serves as a member of the Board of Trustees of the Boston Biomedical Research Institute.

CSO – Yat Sun Or Biography



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- Dr. Or joined Enanta in November 1999.
- Prior to joining Enanta, Dr. Or held key leadership positions at Abbott Laboratories from 1985 to 1999, where he received two Chairman's Awards for his outstanding research, which led to the discovery and development of numerous immunosuppressant and antibacterial drugs. Prior to Abbott, Dr. Or was a member of the cardiovascular drug discovery team at Schering-Plough.
- Dr. Or received his Ph.D. in Organic Chemistry from the University of Chicago and completed Postdoctoral Fellowships at Ohio State University and Indiana University.

CFO – Paul J. Mellett Biography



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- Mr. Mellett joined Enanta in September 2003.
- From April 2001 through August 2003, he held the position of Senior Vice President and Chief Financial Officer of Essential Therapeutics. Previously, Mr. Mellett was the Chief Financial Officer and Vice President of Administration at GelTex Pharmaceuticals, Inc., a publicly held biotechnology company that was acquired by Genzyme Corporation in December 2000. From 1994 to 1997, Mr. Mellett served as Chief Financial Officer of Marshall Contractors, a construction management firm specializing in the pharmaceutical, biotechnology and semiconductor industries, which was acquired by Fluor Corporation in 1996. From 1977 to 1994, Mr. Mellett was employed with Deloitte & Touche LLP, a public accounting firm, and was promoted to Audit Partner in 1989.
- Mr. Mellett received a B.S. in Business Administration from Boston College.



LOCK-UP PERIOD

Lock-up Period Expires September 16, 2013



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- Shares not subject to lock-up, can be sold after 90 days
 - 121,839 shares can be sold under Rule 144
 - Shares can be sold on June 16, 2013.
- Lock-up period of 180 days
 - 12,714,722 shares under lock-up agreement
 - Prospectus deemed effective on March 20th, 2013
 - Shares can be sold on September 17, 2013.



FINANCIALS



Disclosures Appendix

Analyst Certification

I, Howard Liang, Ph.D., certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.



Distribution of Ratings/Investment Banking Services (IB) as of 03/31/13				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	107	61.14	32	29.91
HOLD [MP]	68	38.86	0	0.00
SELL [UP]	0	0.00	0	0.00

Explanation of Ratings

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform in line with its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark over the next 12 months. The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.

For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

From October 1, 2006 through January 8, 2009, the relevant benchmarks for the above definitions were the Russell 2000® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

Definitions of Leerink Swann Ratings prior to October 1, 2006 are shown below:

Outperform (Buy): We expect this stock to outperform its benchmark by more than 10 percentage points over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform within a range of plus or minus 10 percentage points of its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark by more than 10 percentage points over the next 12 months.

For the purposes of these definitions, the relevant benchmark were the Russell 2000® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Index for issuers with a market capitalization over \$2 billion.



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