Antibe Therapeutics

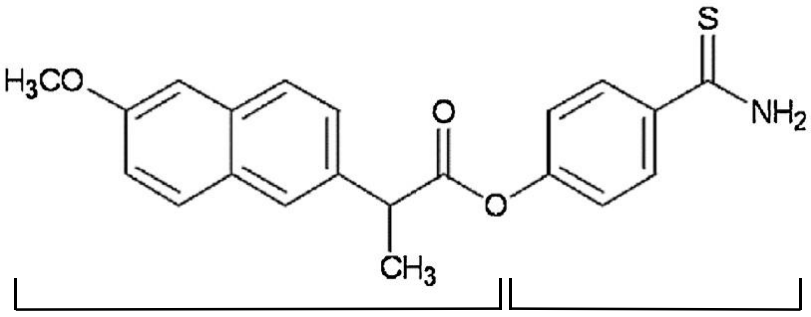
Phase II Update Shows ATB-346 Performs Well On Other End-points, Not Just On Gastroduodenal Ulcer Rate – Spec BUY

ATE-TSXV: $0.38
Speculative Buy
$1.40 Target

Event: ON-based drug developer Antibe Therapeutics provided an update on key secondary endpoints revealed in its now-concluded 244-patient Phase IIa safety trial, comparing the firm's lead hydrogen sulfide (H_2S)-releasing naproxen derivative drug ATB-346 to naproxen itself at doses relevant to how the two non-steroidal anti-inflammatory drugs (NSAIDs) either do (naproxen) or are predicted to (ATB-346) confer clinically-meaningful pain relief in knee osteoarthritis.

ATB-346 performance on secondary safety measures was as positive as GI ulceration rate data were when revealed last quarter: We already knew through prior press release last quarter that ATB-346 compared favorably to naproxen on the key primary study endpoint, which was frequency of gastro-duodenal (GI) ulcers of a defined size (>3 mm in diameter) that emerge after two-week dosing of either agent in healthy volunteers. The gap between the two treatment arms was vast and clinically meaningful in our view (only 3 of 118 [2.5%] ATB-346-treated subjects [250-mg once-daily] developed ulcers of that magnitude as compared to 53 of 126 [42.1%] naproxen-treated subjects [500-mg twice-daily, which is naproxen's indicated dose in knee osteoarthritis]), but a reasonable-to-observe limitation of study design is that the two drugs were tested at clearly distinct dosage strengths.

Exhibit 1 – Molecular Structure of ATB-346



Naproxen — *H_2S-releasing 4-hydroxythiobenzamide*

Source: Pharmacological Research (2016). Vol. 111, pp. 652-658

Refinement in ATB-346 dose range will be explored in future Phase II pain studies, but available evidence already reveals strong insight into what approvable dose could be: This was intentional and justified in our view based on insights from an earlier 12-patient Phase II open-label knee osteoarthritis study completed in FQ217 that showed measurable (and time-dependent) WOMAC-confirmed knee osteoarthritis pain relief out to ten days and to pain relief levels comparable to (and in fact, exceeding) those published for 500-mg twice-daily naproxen dosing.

That small open-label Phase II trial has several limitations of course – starting with the fact that it was small and open-label – but still, the trial established 250-mg once-daily ATB-346 dosing as at least being a credible starting point for assessing comparative GI ulceration rate

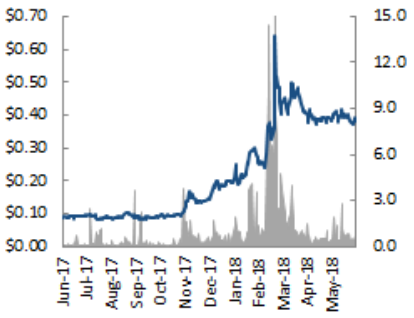
Projected Return: 268%
Valuation: NPV, 20x EPS, 12.5x EV/EBITDA (F2025 forecasts)

Market Data	
Basic Shares O/S (M)	199.0
FD Shares O/S (M)	259.5
Market capitalization ($M)	75.6
Enterprise Value ($M)	73.2
Adj pro forma cash ($M, most rec Q)	3.7
LT debt ($M, most rec Q)	1.3
52 Week Range	$0.08-$0.79
Avg. Weekly Volume (M)	7.71
Fiscal Year End	Mar-31

Key Milestone	
Phase II data, ATB-346 dose-ranging study	CQ119
Commence ATB-346 dose-ranging study	CQ218
Phase II, ATB-346, GI ulceration rate data (completed Mar/18)	CQ118
Phase II, open-label knee osteoarthritis data (completed Aug/16)	CQ316

Financial Metrics			
In C$	2018E	2019E	2020E
Total Revenue ($000)	8,402	8,822	9,264
EBITDA ($000)	(5,248)	(5,647)	(8,279)
Adj net inc ($000)	(7,101)	(7,194)	(9,826)
EPS (basic)	($0.04)	($0.04)	($0.05)
EPS (FD)	($0.03)	($0.03)	($0.04)
P/E	NA	NA	NA
EV/EBITDA	NA	NA	NA

Antibe is a clinical stage drug developer, with lead clinical asset - hydrogen sulfide-releasing naproxen analog ATB-346 - focused on knee osteoarthritis as initial pain market. Ketoprofen-based ATB-352 & aspirin-based ATB-340 are in preclinical testing



Source: Consensus Data - Capital IQ, Forecasts/Estimates - Echelon Wealth Partners

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in healthy volunteers and when collectively considering data from both trials, we are optimistic that ATB-346 can perform well not just on GI ulceration rate but also on magnitude of knee osteoarthritis pain relief in contemplated multi-arm controlled Phase II testing that we expect Antibe to commence imminently.

Secondary measures of GI ulceration severity/frequency were as positive as primary measures were: So Antibe's press release on secondary endpoints was reasonably clear and we will not dwell on secondary specifics other than to observe that, without exception, we are positive about how well ATB-346 performed on all measures. These include on GI ulceration rate severity (no severe ulcers exhibited in any of the 118 ATB-346-treated subjects as compared to 30 of 126 naproxen-treated subjects), on total number of GI ulcers observed (only four in ATB-346-treated subjects [essentially just one lesion per subject] as compared to 203 such lesions for naproxen-treated subjects [so about four lesions per patient]), on stomach discomfort/ dyspepsia incidence leading to study withdrawal (no such episodes in the entire study, which does not favor ATB-346 necessarily, but at minimum it does not reveal any new limitations in ATB-346 at this test dose and over two week duration), or on changes from baseline in hematocrit (the ratio of red blood cell volume to overall blood volume) in either study arm.

Exhibit 2 – Income and Financial Summary for Antibe

(C$000, except EPS)	2017A	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Product Sales, Citagenix	9,054	8,402	8,822	9,264	9,727	10,213	10,724	11,260	11,823	12,414	13,035	13,686
Royalty revenue, ATB-346	0	0	0	0	0	0	0	70,895	172,879	249,816	303,713	355,780
Total revenue	**$9,054**	**$8,402**	**$8,822**	**$9,264**	**$9,727**	**$10,213**	**$10,724**	**$82,155**	**$184,701**	**$262,230**	**$316,748**	**$369,466**
Revenue growth (%)	*104%*	*($7%)*	*5%*	*5%*	*5%*	*5%*	*5%*	*666%*	*125%*	*42%*	*21%*	*17%*
EBITDA	**($3,700)**	**($5,248)**	**($5,647)**	**($8,279)**	**($5,223)**	**($4,543)**	**($2,145)**	**$66,453**	**$165,599**	**$241,089**	**$294,495**	**$346,648**
EBITDA growth (%)	50%	42%	8%	47%	(37%)	(13%)	(53%)	(3198%)	149%	46%	22%	18%
EBITDA margin (%)	*(41%)*	*(62%)*	*(64%)*	*(89%)*	*(54%)*	*(44%)*	*(20%)*	*81%*	*90%*	*92%*	*93%*	*94%*
Net income, fully-taxed	($5,746)	($7,101)	($7,194)	($9,826)	($6,770)	($6,089)	($3,692)	$45,434	$114,836	$167,680	$205,063	$241,571
Fully-taxed EPS (basic)	($0.05)	($0.04)	($0.04)	($0.05)	($0.03)	($0.03)	($0.02)	$0.21	$0.52	$0.77	$0.94	$1.10
Fully-taxed EPS (fd)	**($0.03)**	**($0.03)**	**($0.03)**	**($0.04)**	**($0.02)**	**($0.02)**	**($0.01)**	**$0.16**	**$0.41**	**$0.60**	**$0.73**	**$0.86**
P/E (basic)	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*1.8x*	*0.7x*	*0.5x*	*0.4x*	*0.3x*
EV/EBITDA	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*1.1x*	*0.5x*	*0.3x*	*0.3x*	*0.2x*
S/O, basic (M)	*113.0*	*163.0*	*199.0*	*209.0*	*219.0*	*219.0*	*219.0*	*219.0*	*219.0*	*219.0*	*219.0*	*219.0*
S/O, fd (M)	*166.1*	*243.3*	*259.5*	*269.5*	*279.5*	*279.5*	*279.5*	*279.5*	*279.5*	*279.5*	*279.5*	*279.5*

Source: Historicals - Company Information, forecasts/estimates – Echelon Wealth Partners

Relative reduction in blood thromboxane B2 levels suggests to us that similar pharmacologic activity could be conferred by ATB-346 vs naproxen despite clear differences in dosage strength: Importantly, we were encouraged to see that both ATB-346 and naproxen itself at the indicated doses both reduces blood levels of the arachidonic acid derivative thromboxane B2, for which blood levels are known to be reduced by NSAIDs in general and naproxen specifically. The compound is a precursor to a different thromboxane called thromboxane A2 that facilitates platelet aggregation, but for Antibe's purposes, the B2 form is a useful marker for comparing pharmacologic activity of ATB-346 vs naproxen, even though blood thromboxane B2 levels are not all that relevant clinically to naproxen action (thromboxane B2 is not mentioned in any naproxen prescribing information we reviewed, other than in the context of how NSAID co-administration with acetylsalicylic acid/aspirin impacts thromboxane levels as impacted by aspirin).

As a measure of pharmacologic activity, we are encouraged to see that ATB-346 and naproxen at the test doses deployed both reduced blood thromboxane B2 levels by an equivalent amount and by >94% in each study arm. We see this as indirect but important evidence that 250-mg once-daily ATB-346 could confer similar pain relief as 500-mg twice-daily naproxen if both dosage strengths exhibited similar pharmacologic activity by this measure. We of course look forward to monitoring Antibe's progress on a confirmatory multi-arm/controlled Phase II knee osteoarthritis trial that will more stringently assess comparative pain relief activity at or near the doses tested in the aforementioned Phase IIa trial.

We will be interested to see how ATB-346 liver toxicity profile compares to prior Phase I/II testing, more for historic consideration than any real concerns on this parameter at new (and much lower) ATB-346 dosage strength: We observe in passing that even though liver toxicity was not specified as a secondary endpoint in Antibe's study protocol, we will still be interested in how ATB-346 performed on this measure and we are hopeful that insights on this theme will be disclosed when data are formally published in peer reviewed form. Recall that ATB-346 at ultra-high doses did engender elevation in serum levels of liver enzymes (usually includes the transaminase enzymes ALT and AST, both important not because of what they do [they are relevant in the production of the amino acids alanine and aspartic acid in the body] than by where they are normally found in healthy individuals [mostly in the liver]).

We are not overly concerned that ATB-346 revealed any new liver toxicity at 250-mg once-daily in this new trial since liver toxicity was observed in previous Phase I testing only at doses (up to 1,500-mg daily) no longer deemed relevant to its future clinical use. Antibe did not provide any specific liver function data from its aforementioned 12-patient Phase II open-label knee osteoarthritis trial either, but we infer from the selection of 250-mg daily dosing as the relevant dose in this new trial that no material impact on liver function was observed.

Exhibit 3 – Valuation Scenarios for Antibe Therapeutics

NPV, discount rate	20%	30%	40%	50%	60%	70%
Implied value per share	$3.52	$2.05	**$1.18**	$0.76	$0.47	$0.30
Price/earnings multiple, F2025	**10x**	**15x**	**20x**	**25x**	**30x**	**35x**
Implied share price[1]	$0.76	$1.15	**$1.53**	$1.91	$2.29	$2.67
EV/EBITDA multiple, F2025	**5x**	**10x**	**12.5x**	**15x**	**17.5x**	**20x**
Implied share price[1,2]	$0.55	$1.10	**$1.38**	$1.65	$1.93	$2.20
One-year Antibe target price (C$) [1]			**$1.36**			

[1] Based on F2025 fd fully-taxed EPS of $0.41; EBITDA of $165.6M, discounted at 40%, FD S/O of 259.5M, but FD S/O of 279.5M embedded in our model

[2] FQ418 cash of $3.7M (includes proceeds from Apr/18 warrant exercise of $4.0M, less FQ418 operating loss of [$2.1M]), total debt of $1.3M

Source: Forecasts/estimates - Echelon Wealth Partners

Summary & valuation: New secondary endpoint data while positive does not move the needle on our already-positive view on ATB-346 medical potential, and we are maintaining our **Speculative BUY rating and price target of $1.40** as a consequence. Our valuation is still based on NPV (40% discount rate) and multiples of our F2025 adjusted EBITDA/fully-diluted fully-taxed EPS of $165.6M/$0.41, respectively. Importantly, our valuation and forecasts currently do not include any economics from other H_2S-releasing drug conjugates in Antibe's pipeline just because they are currently in preclinical testing – these include the ketoprofen analog ATB-352 (probably will target different acute/chronic pain markets distinct from knee osteoarthritis) and the acetylsalicylic acid analog ATB-340 (probably will target cardioprotection and/or inhibition of platelet aggregation/stroke prevention as low-dose aspirin currently does to some degree).

New Phase II knee osteoarthritis pain data on the horizon, perhaps by end-of-F2019 though timeline slippage into FH120 would neither surprise nor concern us: On the milestone watch, Antibe was clear in its just-published FQ418 MD&A that a new Phase II placebo-controlled dose-ranging trial is on pace to generate pain-mitigation data (probably using the well-established WOMAC pain intensity for this purpose) by FQ419 (CQ119). This aggressive timeline to data suggests to us that the trial will need to commence enrollment imminently (July/18 was specifically mentioned as a commencement date in the firm's May/18 investor presentation) and will probably assess a more short-term efficacy time point (say, about 14 days as in the Phase IIa trial described above) as opposed to a longer-term twelve-week time point that we suspect will be required in future Phase III pivotal testing. We still expect the firm to assess ATB-346 pain-relieving activity over a few dosage strengths near 250-mg daily just to more fully define safety/efficacy for the compound.

It is not yet clear if a naproxen treatment arm will be included or indeed necessary, especially when considering that FDA usually does not require an active comparator in pivotal Phase III pain studies, and naproxen's pain-relieving

activity is not really a variable meriting further consideration given the drug's long-standing commercial history. Antibe projects that the contemplated Phase II knee osteoarthritis pain trial will require $2.6M, which the firm can fund with available capital (FQ418 cash was $3.7M, total debt was $1.3M) independent of any cash losses that could be incurred by Citagenix during the current fiscal year. But with ATB-346 already showing us that it has strong potential to emerge as a safer alternative to naproxen, and with seminal Phase II pain data on the horizon within the next three quarters or so, we believe that ATE represents strong value at current price levels and we encourage investors to augment holdings prior to new clinical data read-out next year. At current levels, our PT corresponds to a one-year return of 268%.

Exhibit 4 – Comparable Companies for Antibe

Company	Curr	Sym	Shares out (M)	Share price 3-Jul	Mkt cap ($M) (curr)	Mkt cap ($M) (C$)	Ent val ($M) (curr)	Ent val ($M) (C$)	Status of lead program
Nitric Oxide peers									
Nicox S.A.	EUR	CXRX	29.6	€ 6.08	€ 180	$276	€ 196	$300	NCX 470 is a nitric oxide-donating bimatoprost analog aimed at the treatment of patients with open-angle glaucoma or ocular hypertension; IND submission in H118; previously the firm had a nitric oxide derivative of aspirin (NCX 4016) for the treatment of cancer pain but was later discontinued
Novan, Inc.	USD	NOVN	26.0	$2.92	$76	$100	$56	$74	SB206 is a topical nitric oxide releasing gel that is advanced in a 108-pt Phase II trial for the treatment of genital warts; the firm's other lead asset SB204 is pending an additional pivotal trial in acne vulgaris in Q118
Large-cap peers involved in osteoarthritis therapies									
Ono Pharmaceutical Co., Ltd.	JPY	4528	514.1	¥2,511.00	¥1,290,959	$15,401	$1,221,956	$14,578	ONO-4474 is a tropomyosin receptor kinase inhibitor currently in a 280-pt Phase II trial that was completed in early H118
Pfizer Inc.	USD	PFE	5,849.6	$36.33	$212,515	$280,858	$242,688	$320,734	Eli Lilly-partnered tanezumab is a nerve growth factor mAb aimed at the reduction of pain associated in patients with osteoarthritis of the knee; currently in a 810-pt Phase III trial with data expected in
Regeneron Pharmaceuticals, Inc.	USD	REGN	107.8	$351.14	$37,837	$50,005	$36,917	$48,789	Mitsubishi Tanabe/Teva-partnered Fasinumab/MT-5547 is an anti-Nerve Growth Factor fully human mAb aimed at the reduction of pain related to osteoarthritis, currently in parallel Phase III trials (3640-pt FACT OA1 and 2,700-FACTO OA2) with data expected in
Shionogi & Co., Ltd.	JPY	4507	314.4	¥5,492.00	¥1,726,442	$20,596	$1,493,993	$17,823	V120083 is a Purdue-partnered analgesic that completed a 276-pt Phase II moderate-to-severe chronic knee osteoarthritis pain trial (Jan/18); compared against naproxen and placebo
Vertex Pharmaceuticals Incorporated	USD	VRTX	254.8	$169.61	$43,222	$57,121	$41,370	$54,674	VX-150 is a Nav 1.8 sodium channel blocker; completed a 124-patient Phase II knee osteoarthritis trial in Jan/17, saw decrease of 0.8 units on WOMAC pain subscale
Average						**$60,623**		**$65,282**	
Antibe Therapeutics Inc.	**CAD**	**ATE**	**210.6**	**$0.38**	**$76**	**$76**	**$73**	**$73**	**ATB-346 is a hydrogen sulfide derivative of naproxen, currently in Phase II trials for the reduction of pain associated with osteoarthritis**

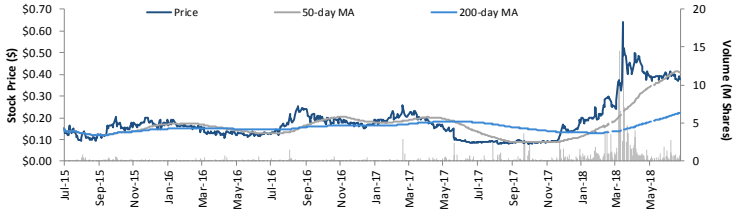
Source: Consensus data - CapitalIQ, descriptions and chart created by Echelon Wealth Partners

Exhibit 5 – Comparable Companies for Antibe

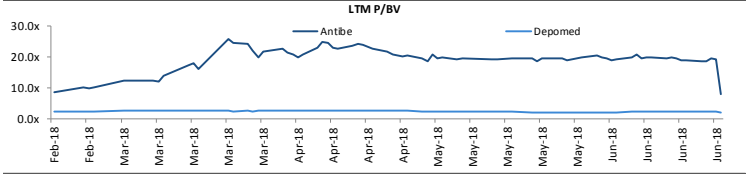
Company	Curr	Sym	Shares out (M)	Share price 3-Jul	Mkt cap ($M) (curr)	Mkt cap ($M) (C$)	Ent val ($M) (curr)	Ent val ($M) (C$)	Status of lead program
Osteoarthritis Pain/Chronic Pain									
Ampio Pharmaceuticals, Inc.	USD	AMPE	86.3	$2.05	$177	$234	$169	$224	AP-003-C/Ampion is an intra-articular injection, low molecular weight fraction of human serum albumin with the active in treatment of osteoarthritis pai; completed 125-pt Phase III trial in Dec/18
Anika Therapeutics, Inc.	USD	ANIK	14.3	$32.97	$472	$624	$309	$408	CINGAL is cross-linked viscoelastic hyaluronic acid, approved in Canada; US-based 576-pt Phase III trial comparing to Monovisc and Triamcinolone Hexacetonide is ongoing; data expected by Jun/18
Axsome Therapeutics, Inc.	USD	AXSM	25.7	$3.15	$81	$107	$63	$84	Disodium zoledronate tetrahydrate formulation AXS-02, an osteoclast inhibitor targeting knee osteoarthritis associated with bone marrow lesions; 346-pt Phase III trial completed in Sep/17
Bone Therapeutics SA	EUR	BOTHE	7.6	€ 8.50	€ 65	$100	€ 88	$136	JTA-004 is an injectable visco-antalgic product currently in a 164-pt Phase II/III trial in patients with symptomatic knee osteoarthritis, and compared against Ostenil Plus (a reference visco-supplement); data expected in
Camurus AB (publ)	SEK	CAMX	37.3	SEK 98	SEK 3,642	$534	SEK 3,324	$488	CAM2038 is a long-acting subcutaneous buprenorphine for the treatment of chronic pain
Collegium Pharmaceutical, Inc.	USD	COLL	33.0	$24.30	$803	$1,061	$686	$907	Abuse-deterring extended-release oxycodone Xtampza, based on DETERx wax-based microsphere tchnology, was FDA-approved in Q216; acquires rights to transmucosal fentanyl form Onsolis from BioDelivery Sciences also
Depomed, Inc.	USD	DEPO	63.6	$6.82	$434	$573	$964	$1,274	Commercial-stage drug delivery pain/CNS-focused; sells diclofenac form CAMBIA & extended-release tapentadol NYCYNTA ER; neuropathic pain drug cebranopadol in clinical testing
DURECT Corporation	USD	DRRX	161.7	$1.56	$252	$333	$228	$301	Diversified portfolio, not pain-focused, but oxycodone formulation RemoxyER based on Oradur platform; NDA resubmission in Q118. Post-operative pain drug SABER-bupivacaine failed in Phase III
Egalet Corporation	USD	EGLT	52.9	$0.40	$21	$28	$49	$65	Extended-release abuse-deterring morphine Arymo ER, oxycodone tablet Oxaydo & ketorolac tromethamine spray Sprix all FDA-approved; Guardian-formulated oxycodone Egalet-002 in Phase III lower back pain testing
Elite Pharmaceuticals, Inc.	USD	ELTP	803.6	$0.09	$72	$96	$83	$110	Extended-release abuse-deterring bead-based naloxone-containing opioid forms based on ART platform; ANDA for extended-release oxycodone filed in Q317; FQ318 sales were US$2.5M
Endo International plc	USD	ENDP	223.8	$9.77	$2,186	$2,890	$9,478	$12,526	Diversified pain portfolio that includes Lidoderm (lidocaine patch), Opana ER (oxymorphone), Percodan (oxycodone-aspirin), Percocet (oxycodone-acetaminophen), Voltaren Gel (diclofenac)
Flexion Therapeutics, Inc.	USD	FLXN	37.6	$24.92	$938	$1,240	$726	$959	Flexion's Zilretta received FDA approval in Oct/16 (non-opioid intra-articular triamcinolone acetonide formulation Zilretta) for knee osteoarthritis pain; pricing was estimated to be US$570/dose
Horizon Pharma Public Limited Company	USD	HZNP	165.0	$16.78	$2,769	$3,660	$4,000	$5,286	Sells Nuvo's topical DMSO-based diclofenac formulation Pennsaid 2% in US; also naproxen-esomeprazole form Vimovo & ibuprofen-famotidine form Duexis; 2017 net product sales US$1.06B
Mallinckrodt Public Limited Company	USD	MNK	83.1	$19.29	$1,603	$2,118	$7,904	$10,446	Diversified pharma firm with pain franchise, generic formulations of fentanyl, morphine, oxycodone, oxymorphone, hydromorphone; clinical pipeline iron-ically has few pain therapies in Phase I-III testing
Nektar Therapeutics	USD	NKTR	171.4	$48.83	$8,370	$11,061	$8,319	$10,994	NKTR-181 is mu-opioid agonist analgesic, completed Phase III SUMMIT trials (638 patients, either opioid-naïve and opioid experienced) for treating chronic low back pain or chronic non-cancer pain
Omeros Corporation	USD	OMER	48.3	$18.51	$894	$1,181	$907	$1,198	Diversified portfolio, but GPCR-targeted pipeline has pain candidates (MRGE); FDA-approved Omidria (phenylephrine-ketorolac intraocular solution) targets post-ocular surgery (cataract removal) pain
Orexo AB (publ)	SEK	ORX	34.6	SEK 29	SEK 1,006	$148	SEK 897	$132	Markets Abstral (sublingual fentanyl) for breakthrough cancer pain; acute pain drug OX51 and opioid dependence/pain drug OX382 in Phase I/II
Pacira Pharmaceuticals,	USD	PCRX	40.7	$32.85	$1,338	$1,768	$1,278	$1,689	DepoFoam liposome platform; lead drug is FDA-approved local anesthetic Exparel (injectible bupivacaine)
Taiwan Liposome Company, Ltd.	TWD	4152	56.2	TWD 103	TWD 5,760	$249	TWD 5,183	$224	TLC599 is a lipsome encapsulated steroid currently in a 72-pt Phase II trial aimed at the treatment of patients with osteoarthritis of the knee; data expected in Jul/18
Tetra Bio-Pharma Inc.	CAD	TBP	153.0	$0.65	$99	$99	$97	$97	Dronabinol XL/PPP002 is an Intelgenx-partnered buccally-absorbed THC formulation targeting chronic pain; Phase II trial initiated in Q118
Zogenix, Inc.	USD	ZGNX	35.2	$43.70	$1,539	$2,034	$1,267	$1,675	Lead is ZX008 (fenfluramine) in Dravet's disease & Lennox Gastaut Syndrome; legacy pain franchise (FDA-approved hydrocodone Zohydro ER) sold to Pernix in Q115 for US$100M plus US$283.5M milestones
Average						**$1,435**		**$2,344**	
Antibe Therapeutics Inc.	**CAD**	**ATE**	**210.6**	**$0.38**	**$76**	**$76**	**$73**	**$73**	**ATB-346 is a hydrogen sulfide derivative of naproxen, currently in Phase II trials for the reduction of pain associated with osteoarthritis**

Source: Consensus data – CapitalIQ, descriptions and chart created by Echelon Wealth Partners

TEARSHEET - Antibe Therapeutics (ATE-V, $0.38, SPEC BUY, PT: $1.40)



Historical Valuations



Financial Summary/Key Metrics	2018E	2019E	2020E	2021E	2022E	2023E	2024E
C$000s except per share data							
Product sales, Citagenix	8,402	8,822	9,264	9,727	10,213	10,724	11,260
Royalty revenue, ATB-346	0	0	0	0	0	0	70,895
Total product revenue	8,402	8,822	9,264	9,727	10,213	10,724	82,155
Growth (%)	NA	5.0%	5.0%	5.0%	5.0%	5.0%	666.1%
Cons.	0.0	0.0	0.0	0.0	10.2	10.7	82.2
Cons. 3 Mts. Ago	0.0	0.0	0.0	NA	NA	NA	NA
EBITDA	**($5,248)**	**($5,647)**	**($8,279)**	**($5,223)**	**($4,543)**	**($2,145)**	**$66,453**
Margin	NA	NA	NA	NA	NA	NA	80.9%
Cons.	(5.2)	(5.6)	(8.3)	(5.2)	(4.5)	(2.1)	66.5
Cons. 3 Mts Ago	NA	NA	NA	NA	NA	NA	NA
Net income, fully-taxed	(7,101)	(7,194)	(9,826)	(6,770)	(6,089)	(3,692)	$45,434
EPS (fully taxed)	**($0.03)**	**($0.03)**	**($0.04)**	**($0.02)**	**($0.02)**	**($0.01)**	**$0.16**
Cons.	($0.04)	($0.04)	($0.04)	NA	NA	NA	NA
Cons. 3 Mts. Ago	($0.04)	($0.04)	($0.04)	NA	NA	NA	NA
P/E	NA	NA	NA	NA	NA	NA	1.8x
EV/EBITDA	NA	NA	NA	NA	NA	NA	1.1x

Valuation			
NPV	30%	40%	50%
Implied value/share[1]	$2.05	$1.18	$0.76
Price/earnings multiple, F2025	15.0x	20.0x	25.0x
Implied value/share[1]	$1.15	$1.53	$1.91
EV/EBITDA multiple, F2025	10.0x	12.5x	15.0x
Implied value/share[1]	$1.10	$1.38	$1.65
One Year Antibe Therapeutics Target Price		**$1.40**	

[1] Based on F2025 fd fully-taxed EPS of $0.41; EBITDA of $165.6M, discounted at 40%, FD S/O of 259.5M, but FD S/O of 279.5M embedded in our model

[2] FQ418 cash of $3.7M (includes proceeds from Apr/18 warrant exercise of $4.0M, less FQ418 operating loss of [$2.1M]), total debt of $1.3M

Company Description

Antibe is a clinical stage drug developer, whose lead clinical asset is gastro-protective hydrogen sulfide-releasing analog of naproxen called ATB-346, for which positive Phase I/II pain and GI ulceration rate data are already available & future Phase II/III testing is being contemplated, with knee osteoarthritis as the initial focus market.

Consensus		Return
Rating:	Outperform	
Target:	$1.60	321.1%
Median:	$1.60	321.1%
High:	$1.80	373.7%
Low:	$1.40	268.4%
# Est:	2	
Consensus Distribution		
Sector Outperform/Buy		1
Sector Perform/Hold		0
Sector UnderPerform/Sell		0

Key Statistics	Value	
52-Wk High:	$0.79	207.9%
52-Wk Low:	$0.08	21.1%
Avg Vol (3-Mo)	0.39	
Shares O/S:	210.6	
Market Cap:	75.6	
Adj. Proforma Cash ($M):	3.7	
Ent. Value ($M):	73.2	
Div Yield:	0.0%	
Website:	www.antibethera.com	
FYE:	Mar 31	
Employees:	41	

Top Institutional Ownership	M Shares	% Held
Goodman & Company, Investment Counsel Inc.	4.1667	2.0%
Goodman & Company, Investment Counsel Inc.	4.1667	2.0%
NFQ Ventures	1.6000	0.8%
Next Edge Capital Corp.	NA	NA
NA	NA	NA
NA	NA	NA

Comparables and Peer Analysis									% Return				Consensus Valuations					
													EBITDA			EPS		
	Ticker	Trading CCY	Current Price	Target Price	Dividend Yield	% Return	Market Cap	Ent. Value	1-Week	1-Month	3-Month	1-Year	T12M	2018E	2019E	T12M	2018E	2019E
Antibe Therapeutics Inc.	**ATE**	**CAD**	**$0.38**	**$1.40**	**0.0%**	**268.4%**	**75.6**	**73.2**	**2.7%**	**(5.0%)**	**(9.5%)**	**322.2%**	**(6.3)**	**(5.2)**	**(5.6)**	**($0.05)**	**($0.04)**	**($0.04)**
Anika Therapeutics, Inc.	ANIK	USD	$32.97	$50.00	0.0%	51.7%	471.8	308.8	4.8%	(20.1%)	(29.3%)	(33.8%)	40.8	31.7	26.4	$1.34	$0.82	$1.35
Camurus AB (publ)	CAMX	SEK	SEK 98	SEK 112	0.0%	14.1%	3,590.2	3,323.6	(4.2%)	(5.0%)	(15.8%)	(28.7%)	-SEK 235.7	-SEK 255.8	SEK 131.4	-SEK 5.01	-SEK 5.57	SEK 3.48
Collegium Pharmaceutical, Inc.	COLL	USD	$24.30	$33.50	0.0%	37.9%	803.0	686.2	(5.8%)	(0.3%)	1.1%	86.2%	(33.2)	(16.9)	19.7	($2.26)	($1.20)	$0.98
Depomed, Inc.	DEPO	USD	$6.82	$8.67	0.0%	27.1%	433.7	964.1	(4.7%)	7.1%	(1.7%)	(38.1%)	166.1	127.2	127.8	($0.67)	$0.84	$0.81
DURECT Corporation	DRRX	USD	$1.56	$3.50	0.0%	124.4%	252.3	228.0	(10.3%)	(23.2%)	(31.6%)	(1.3%)	(14.6)	0.0	0.0	($0.03)	($0.23)	($0.24)
Nicox S.A.	COX	EUR	$8.03	$18.90	0.0%	135.4%	237.3	196.0	0.3%	(4.4%)	(10.7%)	(31.5%)	(16.9)	(13.5)	(17.1)	($0.31)	($0.43)	($0.59)
Novan, Inc.	NOVN	USD	$2.92	$14.00	0.0%	379.5%	76.0	56.0	(0.7%)	(8.2%)	2.8%	(29.6%)	(30.6)	(31.6)	0.0	($1.70)	($1.19)	$0.00
Vertex Pharmaceuticals Incorporated	VRTX	USD	$169.61	$188.92	0.0%	11.4%	43,221.8	41,369.6	12.0%	11.5%	4.6%	32.3%	463.7	973.8	1,346.5	$0.90	$3.21	$4.54
Ampio Pharmaceuticals, Inc.	AMPE	USD	$2.05	NA	0.0%	NA	177.0	169.4	(11.3%)	7.3%	(44.1%)	284.4%	(14.9)	0.0	0.0	($0.39)	$0.00	$0.00
Nektar Therapeutics	NKTR	USD	$48.83	$94.90	0.0%	94.3%	8,369.6	8,318.6	(2.0%)	(46.0%)	(52.1%)	147.1%	(58.0)	644.7	196.7	($0.82)	$3.70	($1.25)
Average					0.0%	114.4%			168.3%	19.0%	(16.9%)	64.5%						

Comparables - Multiples Analysis	FCF Yield			Current - EV/EBITDA			Target - EV/EBITDA			EV/REV			P/E			P/BV		
	T12M	2018E	2019E	T12	2018E	2019E	T12M	2018E	2019E	2018E	2019E	2020E	T12M	2018E	2019E	T12M	2017E	2018E
Antibe Therapeutics Inc.	**0.0%**	**0.0%**	**0.0%**	**-11.6x**	**NA**	**NA**	**NA**	**NA**	**NA**	**0.0x**	**7.5x**	**6.4x**	**-7.8x**	**NA**	**NA**	**8.0x**	**0.0x**	**0.0x**
Anika Therapeutics, Inc.	3.8%	2.6%	0.0%	7.6x	9.7x	11.7x	7.6x	9.7x	NA	2.8x	2.7x	2.7x	24.5x	40.4x	24.4x	NA	0.0x	0.0x
Camurus AB (publ)	(5.6%)	(5.1%)	0.0%	-14.1x	-13.0x	25.3x	NA	NA	NA	37.2x	7.0x	12.8x	NA	NA	28.1x	NA	20.2x	11.2x
Collegium Pharmaceutical, Inc.	(3.0%)	5.2%	9.0%	-20.6x	-40.7x	34.9x	NA	NA	NA	2.3x	1.9x	1.7x	NA	NA	24.7x	NA	0.0x	0.0x
Depomed, Inc.	17.4%	21.8%	19.5%	5.8x	7.6x	7.5x	5.8x	7.6x	NA	3.7x	3.7x	3.5x	NA	8.2x	8.4x	NA	1.7x	1.8x
DURECT Corporation	0.0%	0.0%	0.0%	-15.6x	NA	NA	NA	NA	NA	12.7x	16.8x	17.3x	NA	NA	NA	NA	0.0x	0.0x
Nicox S.A.	(7.4%)	(4.0%)	0.0%	-11.6x	-14.5x	-11.5x	NA	NA	NA	19.8x	22.6x	8.2x	NA	NA	NA	NA	2.0x	2.5x
Novan, Inc.	0.0%	0.0%	0.0%	-1.8x	NA	NA	NA	NA	NA	85.0x	0.0x	0.0x	NA	NA	NA	6.7x	0.0x	0.0x
Vertex Pharmaceuticals Incorporated	1.7%	5.0%	7.3%	89.2x	42.5x	30.7x	NA	NA	NA	14.9x	12.3x	10.1x	188.1x	52.9x	37.3x	18.0x	15.9x	12.3x
Ampio Pharmaceuticals, Inc.	0.0%	0.0%	0.0%	-11.4x	NA	NA	NA	NA	NA	0.0x	0.0x	0.0x	NA	NA	NA	NA	0.0x	0.0x
Nektar Therapeutics	8.2%	(1.8%)	1.5%	-143.4x	FALSE	FALSE	NA	12.9x	NA	7.1x	30.1x	31.5x	NA	13.2x	NA	NA	5.0x	4.4x
Average				-11.6x	-1.4x	16.4x	6.7x	10.1x	NA	16.9x	9.5x	8.6x	NA	NA	NA	10.9x	4.1x	2.9x

[1] Targets, forecasts and valuations reflect consensus estimates derived from Capital IQ

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Company: Antibe Therapeutics | ATE:TSXV

I, Douglas Loe, hereby certify that the views expressed in this report accurately reflect my personal views about the subject securities or issuers. I also certify that I have not, am not, and will not receive, directly or indirectly, compensation in exchange for expressing the specific recommendations or views in this report.

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Buy	The security represents attractive relative value and is expected to appreciate significantly from the current price over the next 12 month time horizon.
Speculative Buy	The security is considered a BUY but in the analyst's opinion possesses certain operational and/or financial risks that are higher than average.
Hold	The security represents fair value and no material appreciation is expected over the next 12-18 month time horizon.
Sell	The security represents poor value and is expected to depreciate over the next 12 month time horizon.
Under Review	While not a rating, this designates the existing rating and/or forecasts are subject to specific review usually due to a material event or share price move.
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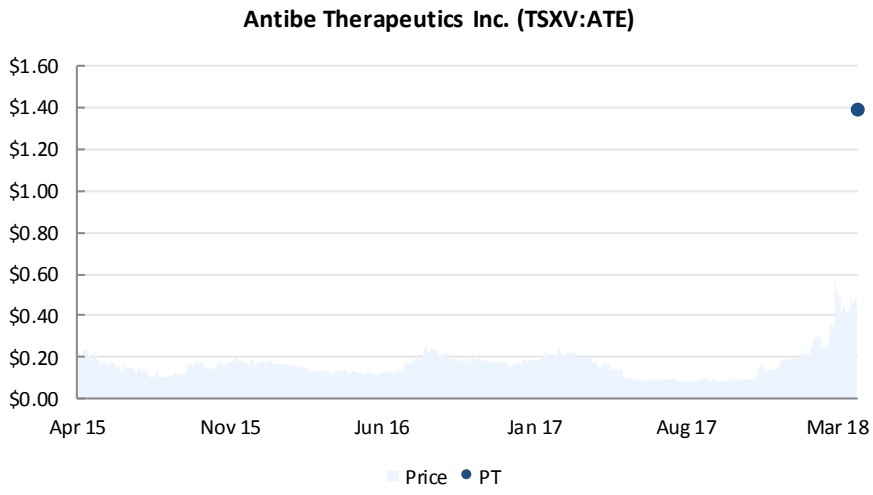
Recommendation Hierarchy	Buy	Speculative Buy	Hold	Sell	Under Review	Restricted	Tender
Number of recommendations	57	53	13	1	4	1	1
% of Total (excluding Restricted)	45%	41%	10%	1%	3%		
Number of investment banking relationships	9	29	1	1	0	1	0
% of Total (excluding Restricted)	23%	73%	3%	3%	0%		

PRICE CHART, RATING & PRICE TARGET HISTORY



Date	Target (C$)	Rating
19 Apr 2018	$1.40	Spec Buy

Coverage Initiated: Apr 19, 2018

Data sourced from: Capital IQ

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