

Sorrento Therapeutics (Nasdaq: SRNE)

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BUY: A Novel TKI Jumps to Phase 2 in COVID Patients to Shut Down the Cytokine Storm

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Abivertinib is a tyrosine kinase inhibitor (TKI) that selectively targets both mutant forms of the epidermal growth factor receptor (EGFR) and Bruton's tyrosine kinase (BTK). Abivertinib irreversibly binds to the BTK receptor, preventing the phosphorylation of the receptor. Due to this effect, it has shown potent immunomodulatory activities in vitro by inhibiting key pro-inflammatory cytokine production, including IL-1beta, IL-6, and TNF-alpha. These cytokines are associated with cytokine release syndrome (CRS) or cytokine storm and COVID-19 disease progression with poor outcomes in patients with acute respiratory distress syndrome (ARDS).

Abivertinib has already been evaluated in 600-plus patients across multiple oncologic indications, including one registration trial in non-small cell lung cancer. Abivertinib targets multiple cytokines simultaneously. As such, the hope is that the effects may be to push beyond where others for IL-6 inhibitors (targeted for COVID-19 trials) have performed. In other words, the clinical benefits should be more pronounced given the broader range of anti-cytokine activity. The Phase 2 trial is planned as a Double-Blinded, Randomized Study of the Efficacy and Safety of STI-5656 (Abivertinib) with Standard of Care Versus Standard of Care in COVID Hospitalized patients.

COVI-TRACK, A Rapid Diagnostic at 97% Plus. Analytical validation was performed by testing sample cohorts from healthy donors and confirmed positive COVID-19 patient samples by RT-PCR testing. The assay demonstrated a specificity higher than 97% and diagnostic sensitivity of greater than 94%. Upon issuance of an EUA, the COVI-TRACK test will be available for distribution to clinical testing sites nationwide. Sorrento has secured manufacturing capacity to support the production of up to five million test kits per month.

Creating the Cocktail - 100% Inhibition. Sorrento examined billions of antibodies and identified approximately a small group that demonstrated the ability to block the S1 protein's interaction with human angiotensin-converting enzyme 2 (ACE2), the receptor used for viral entrance into human cells. Today's news is consistent with the company's goal to generate an antibody cocktail against SARS-CoV-2 coronavirus infection. As a cocktail, the product could remain effective even if virus mutations occur. Through the U.S.'s Project Warp Speed, it's possible we could see this cocktail move rapidly to commercialization.

Valuation. We assume that the company successfully develops COVI-SHIELD (and non-opioid Pain Medication RTX). We apply a probability of success of just 50%, but given the size of the indication, the valuation potential for COVID alone is large. For Sorrento, we additionally apply a 30% discount rate. Our valuation conclusion is an equally-weighted average of our FCFE, EPS, and sum-of-the-parts analysis rounded to the nearest whole number. We use an estimated fully diluted end-year share count (we assume a capital raise). The conclusion of this method is a \$24.00 price target.

Current Price				\$6.97
Price Target				\$24.00
Estimates				
	F2020E	F2021E	F2022E	
Expenses (\$000s)	\$ 1,483,671	\$ 1,099,574	\$ 803,535	
1Q March	\$ 50,884	\$ 252,902	\$ 184,813	
2Q June	\$ 50,423	\$ 263,898	\$ 192,848	
3Q September	\$ 562,927	\$ 285,889	\$ 208,919	
4Q December	\$ 819,436	\$ 296,885	\$ 216,955	
	F2020E	F2021E	F2022E	
EPS (diluted)	\$ 12.28	\$ 7.52	\$ 4.45	
1Q March	\$ (0.36)	\$ 1.73	\$ 1.02	
2Q June	\$ (0.26)	\$ 1.81	\$ 1.07	
3Q September	\$ 5.11	\$ 1.96	\$ 1.16	
4Q December	\$ 7.78	\$ 2.03	\$ 1.20	
EBITDA/Share	\$12.80	\$9.40	\$5.94	
EV/EBITDA (x)	0.6	0.7	1.1	
Stock Data				
52-Week Range	\$1.39	-	\$10.00	
Shares Outstanding (mil.)				202.1
Market Capitalization (mil.)				\$1,409
Enterprise Value (mil.)				\$1,387
Debt to Capital				0%
Book Value/Share				\$2.41
Price/Book				7.2
Average Three Months Trading Volume (K)				4,800
Insider Ownership				20.3%
Institutional Ownership				17.1%
Short interest (mil.)				24.8%
Dividend / Yield				\$0.00/0.0%



VOVI-Shield and STI-1499. This antibody (STI-1499) demonstrated complete blockade of the SARS-CoV-2 virus in early experiments. What was also equally impressive was the low dose, which suggests the antibody "fits" its target extraordinarily well and, as such, can work at a very low dose. This could translate into the ability to scale up rapidly to millions of treatments at a very effective cost of goods. Sorrento plans to develop **STI-1499 as part of this "antibody cocktail," known as COVI-SHIELD. What is the Next Step?** Priority Evaluation / Accelerated Review. The company expects to be in talks with regulators to determine the best pathway to make any potential treatment available as soon as possible.

Risk to our thesis, include the following: (1) commercial; (2) regulatory; (3) clinical; (4) manufacturing; (5) financial; (6) liability; and (7) intellectual property. We review these and other risks in the risk section of this report.

COVID Model Assumptions:

1. We assume that one million essential workers (U.S. & Europe) are candidates for a COVID Prophylaxis and Treatment Products
2. We assume pricing below Gilead's Remdesivir at \$4,000 per therapeutic course.
3. For modeling purposes, we apply a 50% probability of success. This is selected based on the early stage of development but also an acknowledgment that the product has shown promising data that should be predictive in man, and the desperate need to develop a countermeasure to COVID now, i.e., acknowledgment of Project Warp Speed, the U.S. Plan to develop a vaccine and or antidote to Covid.

Exhibit 1. COVID Models U.S. and Rest of World

COVID19	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Target Population	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Population growth	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Population Coverage	100.00%	75.00%	50.00%	40.00%	30.00%	20.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Units Stockpiled	1,000,000	750,000	500,000	400,000	300,000	200,000	100,000	100,000	100,000	100,000	100,000
Average price per unit	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
Revenue ('000)	\$ 4,000,000	\$ 3,000,000	\$ 2,000,000	\$ 1,600,000	\$ 1,200,000	\$ 800,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Risk adjustment	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ 2,000,000	\$ 1,500,000	\$ 1,000,000	\$ 800,000	\$ 600,000	\$ 400,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

Source: Dawson James Estimates

COVID 19 ROW	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Target Population	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Population growth	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Population Coverage	100.00%	75.00%	50.00%	40.00%	30.00%	20.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Units Stockpiled	1,000,000	750,000	500,000	400,000	300,000	200,000	100,000	100,000	100,000	100,000	100,000
Units Purchased in Year	1,000,000	750,000	500,000	400,000	300,000	200,000	100,000	100,000	100,000	100,000	100,000
Average price per unit	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
Increase in Cost	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Revenue ('000)	\$ 4,000,000	\$ 3,000,000	\$ 2,000,000	\$ 1,600,000	\$ 1,200,000	\$ 800,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
Risk adjustment	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ 2,000,000	\$ 1,500,000	\$ 1,000,000	\$ 800,000	\$ 600,000	\$ 400,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

Source: Dawson James

RTX Model Assumptions – Non-Opioid Pain Relief:

1. We assume up to ten million people seek treatment for knee and other related pain relief in the U.S. and also in Rest of the World.
2. We assume pricing at \$5,000 per therapeutic course.
3. For modeling purposes, we apply a 50% probability of success. This is selected based on the ownership of Scilex.
4. For conservatism, we do not include chronic cancer pain and other indications, which could be realized once RTX is commercialized.

Exhibit 2. Sciatca Models U.S. and Rest of World

Non-Opioid Pain Relief USA	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Population	10,000,000	10,100,000	10,201,000	10,303,010	10,406,040	10,510,101	10,615,202	10,721,354	10,828,567	10,936,853	11,046,221
Increase in population	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Seeking Intervention	1,000,000	1,010,000	1,020,100	1,030,301	1,040,604	1,051,010	1,061,520	1,072,135	1,082,857	1,093,685	1,104,622
Market Penetration				4.00%	8.00%	12.00%	15.00%	15.00%	15.00%	20.00%	25.00%
Total patients treated	-	-	-	41,212	83,248	126,121	159,228	160,820	162,429	218,737	276,156
Average price per treatment		\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,100	\$ 5,202	\$ 5,306	\$ 5,412	\$ 5,520	\$ 5,631	\$ 5,743
Increase in Cost		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Parmer revenue ('000)	\$ -	\$ -	\$ -	\$ 206,060	\$ 424,566	\$ 656,083	\$ 844,870	\$ 870,385	\$ 896,671	\$ 1,231,667	\$ 1,586,080
Royalty or profit share (50%)	\$ -	\$ -	\$ -	\$ 103,030	\$ 212,283	\$ 328,041	\$ 422,435	\$ 435,193	\$ 448,335	\$ 615,834	\$ 793,040
Sorrento Ownership adjustment		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ 51,515	\$ 106,142	\$ 164,021	\$ 211,218	\$ 217,596	\$ 224,168	\$ 307,917	\$ 396,520

Source: Dawson James Estimates

Non-Opioid Pain Relief ROW	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Population	25,000,000	25,250,000	25,502,500	25,757,525	26,015,100	26,275,251	26,538,004	26,803,384	27,071,418	27,342,132	27,615,553
Increase in population	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Seeking Intervention	2,500,000	2,525,000	2,550,250	2,575,753	2,601,510	2,627,525	2,653,800	2,680,338	2,707,142	2,734,213	2,761,555
Market Penetration				4.00%	8.00%	12.00%	15.00%	15.00%	15.00%	20.00%	25.00%
Total patients treated	-	-	-	103,030	208,121	315,303	398,070	402,051	406,071	546,843	690,389
Average price per treatment		\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,100	\$ 5,202	\$ 5,306	\$ 5,412	\$ 5,520	\$ 5,631	\$ 5,743
Increase in Cost		2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Parmer revenue ('000)	\$ -	\$ -	\$ -	\$ 515,151	\$ 1,061,416	\$ 1,640,206	\$ 2,112,176	\$ 2,175,963	\$ 2,241,677	\$ 3,079,168	\$ 3,965,199
Royalty or profit share (50%)	\$ -	\$ -	\$ -	\$ 257,575	\$ 530,708	\$ 820,103	\$ 1,056,088	\$ 1,087,982	\$ 1,120,839	\$ 1,539,584	\$ 1,982,599
Sorrento Ownership adjustment		50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Total Revenue ('000)	\$ -	\$ -	\$ -	\$ 128,788	\$ 265,354	\$ 410,052	\$ 528,044	\$ 543,991	\$ 560,419	\$ 769,792	\$ 991,300

Source: Dawson James Estimates

Valuation. We assume that the company successfully develops COVI-SHIELD, but apply a probability of success factor of 50% to our therapeutic model. We make similar assumptions for our RTX model, which assumes ten million candidates for non-opioid pain relief (knee, cancer, and other). Please see our models and assumptions for more details. In addition to our risk cuts in both the COVID and RTX models, we also apply a 30% discount rate. We select 30% as the company is not yet profitable, and most of the products are still dependent on the outcome of the clinical trial. Our model assumes the company raises capital and is based on the 2030 share count. Our valuation conclusion is an equally-weighted average of our FCFF, EPS, and sum-of-the-parts analysis. We use an estimated fully diluted end-year share count and assume multiple raises. The conclusion of this method is a \$24.00 price target.

Exhibit 3. Free Cash Flow Model.

Average	\$	24.0
Price Target	\$	25.1
Year		2020

DCF Valuation Using FCFF (mln):

units (millions - \$)	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBIT	2,547,680	1,910,567	1,206,708	1,048,982	898,800	756,506	587,957	599,320	611,069	811,815	1,024,364
Tax Rate	0%	20%	25%	28%	30%	33%	33%	33%	33%	33%	33%
EBIT(1-t)	2,547,961	1,528,454	905,031	755,267	629,160	506,859	393,931	401,545	409,416	543,916	686,324
- Change in NWC											
Free Cash Flow to Firm (FCFF)	2,547,961	1,528,454	905,031	755,267	629,160	506,859	393,931	401,545	409,416	543,916	686,324
PV of FCFF	2,547,961	1,179,363	538,832	346,965	223,019	138,632	83,136	65,388	51,443	52,734	51,343
Discount Rate		30%									
Long Term Growth Rate		1%									
Terminal Cash Flow		181,315									
Terminal Value YE 2030		13,564									
NPV		5,292,378									
NPV-Debt		182,958									
Shares out (thousands)		203,187	2030								
NPV Per Share		25.1									

Source: Dawson James.

Exhibit 4. Discounted-EPS Model.

Current Year	2020
Year of EPS	2022
Earnings Multiple	10
Discount Factor	30%
Selected Year EPS	\$ 4.45
NPV	\$ 26.5

Source: Dawson James estimates

		Discount Rate and Earnings Multiple Varies, Year is Constant						
		2022 EPS						
Earnings Multiple		10	20%	25%	30%	35%	40%	45%
			\$30.93	\$28.51	\$26.36	\$24.44	\$22.73	\$ 21.19
		15	\$46.40	\$42.76	\$39.53	\$36.66	\$34.09	\$ 31.78
		20	\$61.86	\$57.01	\$52.71	\$48.88	\$45.45	\$ 42.37
		25	\$77.33	\$71.27	\$65.89	\$61.10	\$56.81	\$ 52.96
		30	\$92.80	\$85.52	\$79.07	\$73.32	\$68.18	\$ 63.56
		35	\$108.26	\$99.77	\$92.25	\$85.54	\$79.54	\$ 74.15
		40	\$123.73	\$114.03	\$105.42	\$97.76	\$90.90	\$ 84.74
		45	\$139.19	\$128.28	\$118.60	\$109.98	\$102.26	\$ 95.33

Source: Dawson James.

Exhibit 5. Sum-of-the-Parts Model.

Sorrento Sum of the Parts	LT Gr	Discount Rate	Yrs. to Mkt	% Success	Peak Sales MM's	Term Val
COVID19 USA *	1%	30%	1	70%	\$1,500	\$5,172
NPV						\$8.22
COVID 19 ROW *	1%	30%	1	70%	\$1,500	\$5,172
NPV						\$8.22
Sciatica *	1%	30%	3	50%	\$397	\$1,367
NPV						\$0.92
Sciatica ROW *	1%	30%	3	50%	\$991	\$3,418
NPV						\$2.30
Service Revenues	1%	50%	0	50%	\$11	\$23
NPV						\$0.03
DAR-T Platform	1%	90%	5	50%	\$25	\$28
NPV						\$0.00
Net Margin						60%
MM Shrs OS						203
Total						\$20

Source: Dawson James.

Risk Analysis

Clinical and regulatory risk. There is no assurance that any of the company's products will be approved for any additional indications and, even if approved, will be reimbursed by insurance, or successfully commercialized.

Commercial risk. The focus of the company is on successfully developing their products and eventually bringing them to the mass market. It is important to note that the market opportunity in COVID is a race against time. Others may develop a vaccine that could reduce the need for the company's therapy.

Financial risk. The company may need to raise capital in the marketplace relatively soon, and there can be no assurances that the company will be able to successfully raise capital and do so on favorable terms.

Intellectual property risk. The company may have to defend its patents and technical know-how, and there can be no assurances that the patents will not be infringed or will be held as valid if challenged, and the company may infringe on third party's patents.

Reimbursement and insurance payment risk. Insurance payment for products may be an additional hurdle for adoption.

Exhibit 6. Income Statement.

Sorrento Income Statement (\$ '000)															
SRNE	1Q20A	2Q20E	3Q20E	4Q20E	2020E	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
COVID19 USA *			800,000	1,200,000	2,000,000	1,500,000	1,000,000	800,000	600,000	400,000	200,000	200,000	200,000	200,000	200,000
COVID 19 ROW *			800,000	1,200,000	2,000,000	1,500,000	1,000,000	800,000	600,000	400,000	200,000	200,000	200,000	200,000	200,000
Non - Opioid Pain Relief U.S.						-	-	51,515	106,142	164,021	211,218	217,596	224,168	307,917	396,520
Non - Opioid Pain Relief ROW						-	-	128,788	265,354	410,052	528,044	543,991	560,419	769,792	991,300
Service Revenues	2,473	2,498	2,523	2,548	10,041	10,142	10,243	10,346	10,449	10,554	10,659	10,766	10,873	10,982	11,092
Revenues	5,248	5,300	5,353	5,407	21,309	3,000,000	2,000,000	1,780,303	1,571,496	1,374,072	1,139,261	1,161,587	1,184,587	1,477,709	1,787,820
Total Revenues (Product Sales, Service and Therapeutics)	7,721	7,798	1,607,876	2,407,955	4,031,350	3,010,142	2,010,243	1,790,648	1,581,945	1,384,626	1,149,921	1,172,353	1,195,460	1,488,691	1,798,911
Expenses															
COGS	2,439	2,495	514,520	770,546	1,290,000	903,043	603,073	537,194	474,583	415,388	344,976	351,706	358,638	446,607	539,673
% COGS	31.6%	32%	32%	32%	32%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
R&D	21,154	21,366	21,579	21,795	85,894	87,612	89,364	91,151	92,974	94,834	96,730	98,665	100,638	102,651	104,704
Intangible	992	992	992	992	3,968										
SG&A (net)	26,299	26,562	26,828	27,096	106,784	108,920	111,099	113,321	115,587	117,899	120,257	122,662	125,115	127,617	130,170
Total costs & expenses	50,884	50,423	562,927	819,436	1,483,671	1,099,574	803,535	741,666	683,145	628,120	561,963	573,033	584,391	676,876	774,547
Operating Income (Loss) EBIT	(43,163)	(42,625)	1,044,949	1,588,518	2,547,680	1,910,567	1,206,708	1,048,982	898,800	756,506	587,957	599,320	611,069	811,815	1,024,364
Oper Margin															
(Loss) or Gain on Securities	(59)														
Loss on Partial Debt	(23,645)														
Gain (loss) on derivate liabilities	4,920														
Loss gain on Fx	(147)														
Interest Expense	(6,825)	(6,825)	(6,825)	(6,825)	(27,300)										
Interest Income	19														
Other Income expenses - Financial Expenses (net)	(25,737)	50	50	50	(25,587)										
Pre-tax income	(68,900)	(49,500)	1,038,074	1,581,643	2,501,318	1,910,567	1,206,708	1,048,982	898,800	756,506	587,957	599,320	611,069	811,815	1,024,364
Taxes	(276)	-	-	-	(276)	382,113	301,677	293,715	269,640	249,647	194,026	197,776	201,653	267,899	338,040
Tax Rate	0%	0%	0%	0%	0%	20%	25%	28%	30%	33%	33%	33%	33%	33%	33%
Net Income (loss)	(69,180)	(49,500)	1,038,074	1,581,643	2,501,594	1,528,454	905,031	755,267	629,160	506,859	393,931	401,545	409,416	543,916	686,324
Net Loss attributable to noncontrolling interests	(3,985)	(2,970)	62,284	94,899	150,228.07	293,332.08	305,242.54	317,636.61	330,533.93	343,954.93	357,920.88	372,453.90	387,577.03	403,314.21	419,690
Net Gain / Loss to Sorrento	(65,195)	(46,530)	975,790	1,486,745	2,350,809.69	883,577	391,631	263,919	153,919	46,326	(54,594)	(63,265)	(72,326)	15,501	1,106,015
Basic EPS	(0.36)	(0.26)	5.11	7.78	12.28	7.52	4.45	3.72	3.10	2.49	1.94	1.98	2.01	2.68	4.05
Basic Wght Average Shares Outstanding (thousands)	182,609	192,792	202,984	203,187	195,393	203,187	203,187	203,187	203,187	203,187	203,187	203,187	203,187	203,187	203,187
Fully Diluted Wgtd Avg Shrs outstanding (Thousands)	182,609	192,792	207,984	208,192	197,894	203,187	203,187	203,187	203,187	203,187	203,187	203,187	203,187	203,187	203,187

Source: Company Reports and Dawson James * Ownership & or Risk Adjustment - Revenue source cut by half (50%)

Companies mentioned in this report:

Gilead (GILD-Not Rated)

Important Disclosures:

Price Chart:



Price target and ratings changes over the past three years:

- Initiated – Buy – May 26, 2020 – Price Target \$24.00
- Update – Buy – June 2, 2020 – Price Target \$24.00
- Update – Buy – June 5, 2020 – Price Target \$24.00
- Update – Buy – June 10, 2020 – Price Target \$24.00
- Update – Buy – July 2, 2020 – Price Target \$24.00
- Update – Buy – July 20, 2020 – Price Target \$24.00

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- 1) **Buy:** The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
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The following chart reflects the range of current research report ratings for all companies, followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	23	92%	4	17%
Market Perform (Neutral)	2	8%	1	50%
Market Underperform (Sell)	0	0%	0	0%
Total	25	100%	5	20%

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