

**Ocuphire Pharma, Inc. (OCUP)**  
**Rating: Buy**

Matthew Caufield  
646-975-6964  
[mcaufield@hwcwresearch.com](mailto:mcaufield@hwcwresearch.com)

Andrew S. Fein  
212-356-0546  
[afein@hwcwresearch.com](mailto:afein@hwcwresearch.com)
**Platform Firing on All Cylinders—ZETA-1 Data and Nyxol NDA in Near Term; Reit. Buy**

Stock Data		11/04/2022	
Price		\$2.19	
Exchange		NASDAQ	
Price Target		\$26.00	
52-Week High		\$5.50	
52-Week Low		\$1.78	
Enterprise Value (M)		\$31	
Market Cap (M)		\$45	
Shares Outstanding (M)		20.6	
3 Month Avg Volume		73,450	
Short Interest (M)		0.30	
Balance Sheet Metrics			
Cash (M)		\$13.9	
Total Debt (M)		\$0.0	
Total Cash/Share		\$0.68	
EPS (\$) Diluted			
Full Year - Dec	2021A	2022E	2023E
1Q	(3.57)	(0.35)A	--
2Q	(0.52)	(0.25)A	--
3Q	(0.25)	(0.22)A	--
4Q	(0.35)	(0.28)	--
FY	(3.82)	(1.10)	(1.45)
Revenue (\$M)			
Full Year - Dec	2021A	2022E	2023E
1Q	0.0	0.0A	--
2Q	0.1	0.0A	--
3Q	0.5	0.0A	--
4Q	0.0	0.0	--
FY	0.6	0.0	3.2



**Considerations approaching APX3330 top line expected early 2023.** With plans for reporting top-line results early 2023 from the Phase 2b ZETA-1 trial of oral therapy APX3330 in the treatment of diabetic retinopathy (DR) patients, we anticipate clarity on the prospective improvement in Diabetic Retinopathy Severity Score (DRSS), being evaluated to 24 weeks ( $\geq 2$ -step improvement in DRSS in study eye). Aside from appreciating the differentiated point that APX3330 represents an oral therapy candidate in DR, we highlight its intended action addressing both angiogenesis and inflammation via inhibition of transcription factor regulator Ref-1, which can: (1) block activation of HIF-1 $\alpha$  impacting the VEGF signaling cascade as an anti-VEGF effect; and (2) reduce activation of NF- $\kappa$ B impacting chemokines and other downstream growth factors involved in the inflammatory cascade as an anti-inflammatory effect. While having masked safety data recently demonstrating a consistent safety and tolerability profile for APX3330 that we believe remains well-tolerated, we view the most important question being how the oral therapy could fit into the overall anti-VEGF treatment paradigm in DR/DME. To that end, we highlight KOL takeaways from the company's recent APX3330 event, which specifically emphasized APX3330 improvement need not directly compete with anti-VEGF on efficacy, and instead it was noted approximately 15-20% of patients with  $\geq 2$ -step improvement could be considered a win based on APX3330 acting as a complimentary therapy to anti-VEGF. Ultimately, we believe oral APX3330 could offer potential differentiation even through earlier intervention that is later supplemented by anti-VEGF with disease progression.

**Nyxol flexes its might across RM, presbyopia, and NVD.** We believe the greatest step forward for lead small molecule eye drop candidate Nyxol, is the asset's consistent progress towards NDA submission in the reversal of mydriasis (RM), or pharmacologically induced pupil dilation, expected 4Q22. What is important to appreciate about Nyxol is that its action as a nonselective alpha-1 and alpha-2 adrenergic antagonist for pupil reduction, inhibition of the iris dilator muscle and resultant visual acuity benefit, allow it to be directly applicable across the pipeline's refractive indications. One could argue putting your eggs in one basket behind Nyxol lacks diversification; however, Nyxol has been able to demonstrate achieving its primary endpoints trial after trial and across indications. First in RM, we believe the program is well positioned for NDA submission 4Q22 based on its positive pivotal development including the MIRA-4 pediatric safety trial in pediatric patients ages 3 to 11 years old, the positive Phase 3 registration MIRA-3 trial in RM patients  $\geq 12$  years old to adults, and the positive Phase 3 registration MIRA-2 trial. Moreover, we maintain the absence of headaches, irritation and discomfort can define important keys to therapy adoption. Secondly in presbyopia, or farsightedness commonly treated with reading glasses, we next anticipate initiation of the Phase 3 VEGA-2 trial in 4Q22, and the Phase 3 VEGA-3 trial in 2023, with assessment of Nyxol monotherapy and Nyxol with 0.4% low-dose pilocarpine (LDP) adjunctive therapy, which we believe presents the opportunity for differentiated therapeutic tunability for functional vision and pupil response within presbyopia.

Lastly, for Nyxol development in night vision disturbances (NVD), we highlight positive top-line results from the pivotal Phase 3 LYNX-1 trial of Nyxol in the treatment of dim light or NVD meeting the primary efficacy endpoint with gain of  $\geq 3$  lines (15 letters) of low contrast distance vision under dim light conditions, a highly clinically meaningful achievement in NVD, and key secondary efficacy endpoints. We next anticipate feedback from the agency to inform whether a second Phase 3 LYNX trial emerges for the NVD indication, with Nyxol's overall forthcoming NDA submission in RM standing to plant an assertive flag in the sand in 4Q22 for the refractive platform, from our perspective.

**3Q in numbers.** The company reported G&A expenses of \$1.7M for 3Q22, and reported R&D expenses of \$2.8M for 3Q22. The company reported net loss of \$4.5M, or \$0.22/share for 3Q22. As of September 30, 2022, the company reported \$13.9M in cash and equivalents.

**Valuation and risks.** We reiterate our Buy rating and \$26 price target. Our price target of \$26 per share is based on an equally-weighted composite of: (a) \$34.18 per share, as a 25x multiple of taxed and diluted 2030 EPS of \$3.63 discounted back to December 2022 at 13%; and (b) an NPV discounted cash flow between 2022-2030 of \$17.36 per share, with a discount rate of 13% and growth rate of 1%. These assumptions are in-line with the expected P/E multiple and discount rates of an early developmental-stage biopharmaceutical company. Risks to our investment thesis and target price include: (1) failure of developmental candidates to achieve peak commercial revenue estimates in our model (due to market size, penetration rates, and/or pricing); (2) failure to secure capital resources to fund operations; and (3) continued program development and commercialization.

Ocuphire Pharma  
Income Statement  
(in \$000's except per share values)

Matthew Caufield  
H.C. Wainwright & Co.  
(646) 975-6964, mcaufield@hcwco.com

	2018	2019	2020	Mar 1Q21	Jun 2Q21	Sep 3Q21	Dec 4Q21	2021	Mar 1Q22	Jun 2Q22	Sep 3Q22	Dec 4Q22E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Product Revenue	0	0	0	0	0	-	-	0	0	0	0	0	0	3,246	26,176	74,887	121,958	183,212	234,277	284,012	316,398
Collaboration Revenue	0	0	0	0	100	489	-	589	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Revenue</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>489</b>	<b>0</b>	<b>589</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,246</b>	<b>26,176</b>	<b>74,887</b>	<b>121,958</b>	<b>183,212</b>	<b>234,277</b>	<b>284,012</b>	<b>316,398</b>
<i>Operating expenses:</i>																					
Cost of goods sold	-	-	-	-	-	-	-	-	-	-	-	-	-	357	3,141	8,986	14,635	21,985	28,113	34,081	37,968
% of revenue														11%	12%	12%	12%	12%	12%	12%	12%
General and administrative	7,429	5,738	2,818	1,704	3,408	1,595	1,414	8,121	1,736	1,776	1,703	2,214	7,429	16,344	35,956	55,732	78,024	101,432	111,575	112,690	113,817
% of revenue														137%	137%	74%	64%	55%	48%	40%	36%
Research and development	13,109	5,477	6,648	3,482	3,829	3,126	4,736	15,173	4,772	3,162	2,835	3,686	14,455	17,345	20,814	24,977	29,973	32,970	36,267	39,894	43,883
% of revenue														80%	80%	33%	25%	18%	15%	14%	14%
Acquired in-process research and development	0	0	10,502	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total operating expenses	20,538	11,215	19,968	5,186	7,237	4,721	6,150	23,294	6,508	4,938	4,538	5,899	21,883	34,046	59,914	89,697	122,633	156,388	175,956	186,666	195,669
<b>Profit (loss) from operations</b>	<b>(20,538)</b>	<b>(11,215)</b>	<b>(19,968)</b>	<b>(5,186)</b>	<b>(7,137)</b>	<b>(4,232)</b>	<b>(6,150)</b>	<b>(22,705)</b>	<b>(6,508)</b>	<b>(4,938)</b>	<b>(4,538)</b>	<b>(5,899)</b>	<b>(21,883)</b>	<b>(30,800)</b>	<b>(33,738)</b>	<b>(14,810)</b>	<b>(675)</b>	<b>26,824</b>	<b>58,321</b>	<b>97,346</b>	<b>120,729</b>
<i>Other income:</i>																					
Interest income (expense)	254	314	(6,847)	-	-	-	(2)	(2)	(5)	(4)	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(10)	(10)	(10)
Fair value change in warrant liabilities, derivatives	5,546	2,266	(1,486)	(33,829)	-	-	-	(33,829)	-	-	-	-	-	-	-	-	-	-	-	-	-
Gain on note extinguishment	-	-	3,672	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other income (expense), net	369	-	9	1	1	2	(161)	(157)	(82)	15	7	-	(60)	(61)	(61)	(62)	(62)	(63)	(64)	(64)	(65)
Total other income	6,169	2,580	(4,652)	(33,828)	1	2	(163)	(33,988)	(87)	11	7	-	(69)	(70)	(70)	(71)	(72)	(73)	(73)	(74)	(75)
Earnings (loss) before income taxes	(14,369)	(8,635)	(24,620)	(39,014)	(7,136)	(4,230)	(6,313)	(56,693)	(6,595)	(4,927)	(4,531)	(5,899)	(21,952)	(30,870)	(33,808)	(14,881)	(747)	26,751	58,248	97,272	120,654
Benefit (provision) for income taxes	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	157	(5,618)	(12,232)	(20,427)	(25,337)
Other comprehensive loss, net of tax	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Net Income (loss)</b>	<b>(14,369)</b>	<b>(8,635)</b>	<b>(24,620)</b>	<b>(39,014)</b>	<b>(7,136)</b>	<b>(4,230)</b>	<b>(6,313)</b>	<b>(56,693)</b>	<b>(6,595)</b>	<b>(4,927)</b>	<b>(4,531)</b>	<b>(5,899)</b>	<b>(21,952)</b>	<b>(30,870)</b>	<b>(33,808)</b>	<b>(14,881)</b>	<b>(590)</b>	<b>21,134</b>	<b>46,016</b>	<b>76,845</b>	<b>95,317</b>
Comprehensive Net Income (loss)	(14,369)	(8,635)	(24,620)	(39,014)	(7,136)	(4,230)	(6,313)	(56,693)	(6,595)	(4,927)	(4,531)	(5,899)	(21,952)	(30,870)	(33,808)	(14,881)	(590)	21,134	46,016	76,845	95,317
<b>EPS, basic and diluted</b>	<b>(5.25)</b>	<b>(2.18)</b>	<b>(5.28)</b>	<b>(3.57)</b>	<b>(0.52)</b>	<b>(0.25)</b>	<b>(0.35)</b>	<b>(3.82)</b>	<b>(0.35)</b>	<b>(0.25)</b>	<b>(0.22)</b>	<b>(0.28)</b>	<b>(1.10)</b>	<b>(1.45)</b>	<b>(1.54)</b>	<b>(0.66)</b>	<b>(0.03)</b>	<b>0.88</b>	<b>1.86</b>	<b>3.02</b>	<b>3.63</b>
Shares outstanding, basic and diluted	2,738,506	3,960,163	4,661,110	10,923,651	13,608,596	16,925,006	17,854,790	14,852,745	18,888,471	19,502,563	20,498,229	20,703,211	19,898,119	21,324,308	21,964,037	22,622,958	23,301,647	24,000,696	24,720,717	25,462,338	26,226,209

Source: Company Reports, H.C. Wainwright estimates.

**Ocuphire Pharma**  
**P/E Multiple Valuation**

**Matthew Caufield**  
**H.C. Wainwright & Co.**  
*(646) 975-6964, mcaufield@hcwco.com*

**EPS**

12/31/2030	Discount Rate	Discount to	Discounted EPS	P/E Multiple	P/E Multiple Step	Discount Step	Variance Step
\$ 3.63	13%	12/31/2022	\$ 1.37	25x	2.0	2.0%	3.0%

**Implied Share Price**

Discount Rate	19.0x	21.0x	23.0x	P/E Multiples 25.0x	27.0x	29.0x	31.0x
7%	\$ 40.19	\$ 44.42	\$ 48.65	\$ 52.88	\$ 57.11	\$ 61.34	\$ 65.57
9%	34.66	38.30	41.95	45.60	49.25	52.90	56.54
11%	29.96	33.12	36.27	39.43	42.58	45.73	48.89
13%	25.98	28.71	31.44	<b>\$ 34.18</b>	36.91	39.65	42.38
15%	22.57	24.95	27.33	29.70	32.08	34.45	36.83
17%	19.67	21.74	23.81	25.88	27.95	30.02	32.09
19%	17.17	18.98	20.79	22.59	24.40	26.21	28.02

**Sensitivity to EPS Estimate**

EPS Sensitivity	Implied EPS	19.0x	21.0x	23.0x	P/E Multiples 25.0x	27.0x	29.0x	31.0x
-9.0%	\$ 3.31	\$ 23.64	\$ 26.13	\$ 28.61	\$ 31.10	\$ 33.59	\$ 36.08	\$ 38.57
-6.0%	3.42	24.42	26.99	29.56	32.13	34.70	37.27	39.84
-3.0%	3.53	25.20	27.85	30.50	33.15	35.80	38.46	41.11
<b>0.0%</b>	<b>3.63</b>	25.98	28.71	31.44	<b>\$ 34.18</b>	36.91	39.65	42.38
3.0%	3.74	26.75	29.57	32.39	35.20	38.02	40.84	43.65
6.0%	3.85	27.53	30.43	33.33	36.23	39.13	42.03	44.92
9.0%	3.96	28.31	31.29	34.27	37.25	40.23	43.21	46.19

Source: Company Reports, H.C. Wainwright estimates.

**Ocuphire Pharma**  
DCF Analysis

**Matthew Caufield**  
**H.C. Wainwright & Co.**  
(646) 975-6964, mcaufield@hcwco.com

Period Ending	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
<b>Unlevered FCF</b>									
Operating Income	(21,883)	(30,800)	(33,738)	(14,810)	(675)	26,824	58,321	97,346	120,729
Depreciation & Amortization	8	8	8	8	8	7	7	7	7
Changes in Working Capital	1,148	1,149	1,151	1,152	1,153	1,154	1,155	1,156	1,158
Capital Expenditures	-	-	-	-	-	-	-	-	-
Taxes	-	-	-	-	157	(5,618)	(12,232)	(20,427)	(25,337)
<b>Total Unlevered Free Cash Flow</b>	<b>(20,727)</b>	<b>(29,643)</b>	<b>(32,579)</b>	<b>(13,650)</b>	<b>642</b>	<b>22,368</b>	<b>47,252</b>	<b>78,082</b>	<b>96,556</b>
<b>Present Value (PV) Calculation:</b>									
Period (Year)	-	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00
Discounted Cash Flow	(20,727)	(26,233)	(25,514)	(9,460)	394	12,140	22,696	33,190	36,321
<b>Total Present Value</b>	<b>22,806</b>								

**Terminal Value**

**Perpetuity Method:**

Unlevered FCF	96,556
<b>Discount Rate</b>	<b>13%</b>
<b>Growth Rate</b>	<b>1%</b>
Terminal Value	812,682
Present Value	305,698

**DCF Total Valuation**

Total Enterprise Value	328,504
Net Cash	17,025
Total Equity Value	345,529
Diluted Share Count	19,898,119
<b>Equity Value Per Share</b>	<b>17.36</b>

**Price Target**

	<b>Weight</b>	<b>PT</b>
DCF	50%	\$17.36
P/E Multiple	50%	\$34.18
<b>Weighted Price Target</b>		<b>\$26</b>
Current stock price		<b>\$2</b>
Upside/Downside		1188.6%
Rating		<b>Buy</b>

Source: Company Reports, H.C. Wainwright estimates.

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## RETURN ASSESSMENT

**Market Outperform (Buy):** The common stock of the company is expected to outperform a passive index comprised of all the common stock of companies within the same sector.

**Market Perform (Neutral):** The common stock of the company is expected to mimic the performance of a passive index comprised of all the common stock of companies within the same sector.

**Market Underperform (Sell):** The common stock of the company is expected to underperform a passive index comprised of all the common stock of companies within the same sector.



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Distribution of Ratings Table as of November 4, 2022				
Ratings	Count	Percent	IB Service/Past 12 Months	
			Count	Percent
Buy	575	87.92%	128	22.26%
Neutral	65	9.94%	7	10.77%
Sell	0	0.00%	0	0.00%
Under Review	14	2.14%	3	21.43%

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