ROTH Capital Partners

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COMPANY NOTE | EQUITY RESEARCH | December 17, 2020

Healthcare: Biotechnology

Company Update

Oryzon Genomics SA | ORY.SM - €2.98 - MADRID | *Buy*

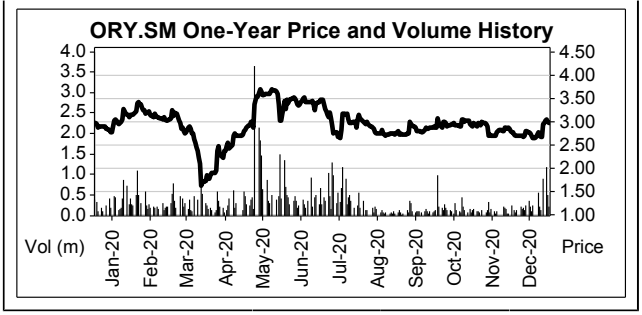
Stock Data	
52-Week Low - High	€1.48 - €3.90
Shares Out. (mil)	53.06
Mkt. Cap.(mil)	€157.86
3-Mo. Avg. Vol.	202,502
12-Mo.Price Target	€15.00
Cash (mil)	$52.2
Tot. Debt (mil)	$13.2

EPS $

Yr Dec	—2019—	—2020E—	—2021E—
		Curr	Curr
1Q	(0.04)A	(0.03)A	-
2Q	(0.02)A	0.00A	-
3Q	(0.02)A	(0.02)A	-
4Q	(0.02)A	(0.06)E	-
YEAR	(0.10)A	(0.12)E	(0.35)E
P/E	NM	NM	NM

Revenue ($ millions)

Yr Dec	—2019—	—2020E—	—2021E—
		Curr	Curr
1Q	0.0A	0.0A	0.0E
2Q	0.0A	0.0A	0.0E
3Q	0.0A	0.0A	0.0E
4Q	0.0A	0.0E	0.0E
YEAR	0.0A	0.0E	0.0E



ORY: Begins Psychiatric Collaboration with Columbia U. for Vafidemstat

ORY and Columbia began a precision medicine collaboration in schizophrenia. Recently published mouse results from Columbia demonstrate that heterozygous loss-of-function mutation of the *Setd1a* gene alters axonal branching and cortical synaptic dynamics, accompanied by specific deficits in working memory that recapitulate human schizophrenic-related cognitive and behavioral deficits, but that vafidemstat fully rescued both the behavioral and neuronal phenotypes. Since the treatment benefited adult animals, it is plausible that *Setd1a* deficiency during early development does not irreversibly compromise these neural circuits.

- In line with the previous positive vafidemstat efficacy results generated by ORY in borderline personality disorder, attention-deficit/hyperactivity disorder, and autism spectrum disorder, the recent preclinical animal results from Columbia support the evaluation of vafidemstat in adolescents and adults with schizophrenia. SETD1A is a key schizophrenia susceptibility gene, given that it encodes a catalytic subunit of the histone methyltransferase protein complex known as Set/COMPASS. Rare variants in SETD1A have been demonstrated in large, unbiased studies to be associated with an increased risk for schizophrenia and neuro-developmental disorders with cognitive impairment. *De novo* mutations in other subunits comprising Set/COMPASS have also been reported in schizophrenia and autism spectrum disorder. The collaboration will initially focus on further molecular characterization of the therapeutic actionability of the SETD1A regulator protein with LSD1 inhibitors in animal models, followed by exhaustive functional psychometric characterization of those having mutations in s*etd1a* to build a foundation for a subsequent precision psychiatry trial with vafidemstat in SETD1A-associated psychiatric disorders. We note the high degree of variability in treatment success regarding psychiatric indications in general, and look forward to future updates from this collaboration given its focus on a patient subset potentially having a specific reason to respond to vafidemstat, a drug that has already demonstrated a highly favorable safety profile in other psychiatric and neurological indications.

- There is a high frequency of s*etd1a* mutation in Pennsylvania's Amish founder population and Columbia will conduct a pilot study to characterize these individuals as to their degree of cognitive impairment. This effort will, in turn, inform the potential actionability of the SETD1A regulator protein by inhibition of LSD1 and the best endpoints for a subsequent vafidemstat trial in this indication. At present, vafidemstat is being evaluated in 2 Phase 2b trials, one in borderline personality disorder, and one in severe COVID-19 patients, and in a European precision psychiatry trial in a type of autism known as Phelan-McDermid syndrome, specifically in patients harboring a mutation in *shank3*.

VALUATION

Our 12-month price target of €15, is based on a DCF analysis using a 35% discount rate that is applied to all cash flows and the terminal value, which is based on a 5x multiple of our projected 2030 operating income of $889 million. We arrive at this valuation by only projecting future revenue from vafidemstat in AD and iadademstat in AML. We view our valuation to be conservative given that it excludes revenue from vafidemstat in ASD, BPD, and ADHD, and from iadademstat in SCLC. Commercial success outside of the two financially modeled indications would serve as upside to our valuation. We believe that ORY.SM has prudently selected areas of unmet need and therefore market demand.

Factors that could impede shares of ORY.SM from achieving our price target include vafidemstat and iadademstat failing to generate statistically significant Phase 3 results in AD and AML, respectively. Also, regulatory agencies could fail to approve these drugs even if both Phase 3 programs are statistical successes, due to the agency viewing the results as not clinically meaningful. Loss of key management personnel could also impede achieving our price target, as could smaller than projected commercial opportunity due to changes in market size, competitive landscape, and drug pricing and reimbursement.

RISKS

- Clinical risk. ORY.SM's clinical staged products could fail to deliver statistically significant results in late-stage clinical trials, substantially reducing the value of ORY.SM's product candidates and therefore our target price.
- Regulatory risk. Even if successful in the clinic, ORY.SM's products could fail to be approved by domestic and/or foreign regulatory bodies, which would reduce ORY.SM's value and therefore our target price.
- Financing risk. ORY.SM will need additional capital to fund its operations, and such financing may not occur or it could be substantially dilutive to existing investors.
- Competitive risk. For any future approved ORY.SM products, they may not be well adopted in a competitive marketplace, which would adversely affect ORY.SM's value and therefore our target price.
- High stock price volatility. This issue is common among small-cap biotechnology companies with relatively low trading volumes.

COMPANY DESCRIPTION

Founded in 2000 in Barcelona, Spain, Oryzon (ISIN Code: ES0167733015) is a clinical stage biopharmaceutical company considered as a European champion in epigenetics. Oryzon has one of the strongest portfolios in the field. Oryzon's LSD1 program has rendered clinical stage vafidemstat and iadademstat. In addition, Oryzon has ongoing programs for developing inhibitors against other epigenetic targets. Oryzon has a strong technological platform for biomarker identification and performs biomarker and target validation for a variety of malignant and neurodegenerative diseases. Oryzon has offices in Spain and the United States

Oryzon Genomics SA
Income Statement
Fiscal Year ends December
(in 000, except per share items)

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	2017A	2018A	1Q19	2Q19	3Q19	4Q19	2019A	1Q20A	2Q20A	3Q20A	4Q20E	2020E	2021E
Global iadademstat revenue													
Global vafidemstat revenue													
Collaboration revenue	20												
Total revenue	**20**												
Cost of revenue													
R&D	6,363	8,489	2,610	3,022	3,462	3,553	12,647	4,316	2,731	2,279	2,507	11,833	15,974
G&A	4,502	2,993	876	1,042	742	516	3,176	846	906	733	740	3,225	3,386
Total operating expenses	**10,865**	**11,482**	**3,486**	**4,064**	**4,204**	**4,069**	**15,823**	**5,162**	**3,637**	**3,012**	**3,247**	**15,058**	**19,360**
Operating income	**(10,845)**	**(11,482)**	**(3,486)**	**(4,064)**	**(4,204)**	**(4,069)**	**(15,823)**	**(5,162)**	**(3,637)**	**(3,012)**	**(3,247)**	**(15,058)**	**(19,360)**
Other income (net)	5,659	8,143	2,497	2,516	3,208	3,301	11,522	4,013	2,312	1,787		8,112	
Net income (pretax)	**(5,186)**	**(3,339)**	**(989)**	**(1,548)**	**(996)**	**(768)**	**(4,301)**	**(1,149)**	**(1,324)**	**(1,225)**	**(3,247)**	**(6,945)**	**(19,360)**
Net financial & tax	1,047	(1,991)	368	(924)	73	296	(187)	116	(1,102)	(155)		(1,141)	
Net income	**(6,233)**	**(1,348)**	**(1,357)**	**(624)**	**(1,069)**	**(1,064)**	**(4,114)**	**(1,265)**	**(222)**	**(1,070)**	**(3,247)**	**(5,804)**	**(19,360)**
EPS basic	**(0.20)**	**(0.04)**	**(0.04)**	**(0.02)**	**(0.02)**	**(0.02)**	**(0.10)**	**(0.03)**	**(0.00)**	**(0.02)**	**(0.06)**	**(0.12)**	**(0.35)**
EPS diluted	**(0.20)**	**(0.04)**	**(0.04)**	**(0.02)**	**(0.02)**	**(0.02)**	**(0.10)**	**(0.03)**	**(0.00)**	**(0.02)**	**(0.06)**	**(0.12)**	**(0.35)**
Basic shares outstanding	31,711	34,638	38,455	38,638	43,677	45,489	41,589	45,489	45,808	52,762	53,290	49,337	55,954
Diluted shares outstanding	31,711	34,638	38,455	38,638	43,677	45,489	41,565	45,489	45,808	52,762	53,290	49,337	55,954

Source: SEC filings, company press releases, and ROTH Capital Partners

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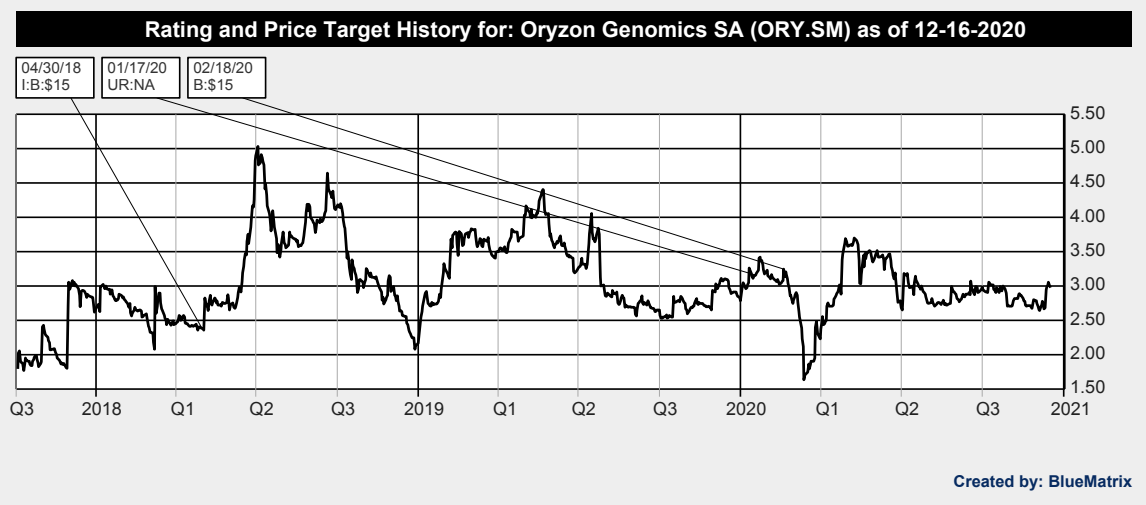
Disclosures:



Each box on the Rating and Price Target History chart above represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first note written during the past three years. **Distribution Ratings/IB Services** shows the number of companies in each rating category from which Roth or an affiliate received compensation for investment banking services in the past 12 month.

Distribution of IB Services Firmwide

			IB Serv./Past 12 Mos. as of 12/17/20	
Rating	**Count**	**Percent**	**Count**	**Percent**
Buy [B]	**285**	**75.40**	**167**	**58.60**
Neutral [N]	**53**	**14.02**	**20**	**37.74**
Sell [S]	**3**	**0.79**	**2**	**66.67**
Under Review [UR]	**37**	**9.79**	**21**	**56.76**

Our rating system attempts to incorporate industry, company and/or overall market risk and volatility. Consequently, at any given point in time, our investment rating on a stock and its implied price movement may not correspond to the stated 12-month price target.

Ratings System Definitions - ROTH employs a rating system based on the following:

Buy: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return of at least 10% over the next 12 months.

Neutral: A rating, which at the time it is instituted and or reiterated, that indicates an expectation of a total return between negative 10% and 10% over the next 12 months.

Sell: A rating, which at the time it is instituted and or reiterated, that indicates an expectation that the price will depreciate by more than 10% over the next 12 months.

Under Review [UR]: A rating, which at the time it is instituted and or reiterated, indicates the temporary removal of the prior rating, price target and estimates for the security. Prior rating, price target and estimates should no longer be relied upon for UR-rated securities.

Not Covered [NC]: ROTH does not publish research or have an opinion about this security.

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