Zacks Equity Research

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Oxygen Biotherapeutics, Inc. (OXBT-NASDAQ)

OXBT: Focusing On Creating Shareholder Value With Oxycyte…

UPDATE

Current Recommendation	**Neutral**
Prior Recommendation	Outperform
Date of Last Change	12/10/2010
Current Price (12/13/10)	$2.00
Target Price	**$3.00**

We currently have a Neutral rating and $3 target on Oxygen Bio. The company's strong science background and seemingly limitless potential for Oxycyte certainly make for an attractive biotech investment. Additionally, with Dermacyte on the market, the company is starting to generate revenues and create shareholder value through non-clinical applications.

That being said, the company is limited by the cash they can raise and the pace at which they can generate the necessary data to keep investors enthused. We are big fans of Oxycyte and believe it has real potential in the future. We are looking forward to the company's next update.

SUMMARY DATA

52-Week High	**$7.25**
52-Week Low	**$2.00**
One-Year Return (%)	**-63.44**
Beta	**0.15**
Average Daily Volume (sh)	**22,217**
Shares Outstanding (mil)	**23**
Market Capitalization ($mil)	**$47**
Short Interest Ratio (days)	**1.82**
Institutional Ownership (%)	**4**
Insider Ownership (%)	**N/A**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/A**
P/E using 2010 Estimate	**N/A**
P/E using 2011 Estimate	**N/A**
Zacks Rank	**3**

Risk Level	**Above Average**
Type of Stock	**Small-Growth**
Industry	**Med-Biomed**
Zacks Rank in Industry	**68 of 102**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Jul)	Q2 (Oct)	Q3 (Jan)	Q4 (Apr)	Year (Apr)
2010	0 A	0 A	0 A	0 A	0 A
2011	0.01 A	0.04 A	0.06 E	0.07 E	0.17 E
2012					0.60 E
2013					1.35 E

Earnings per Share
(EPS is operating earnings before non recurring items)

	Q1 (Jul)	Q2 (Oct)	Q3 (Jan)	Q4 (Apr)	Year (Apr)
2010	-$0.15 A	-$0.13 A	-$0.13 A	-$0.13 A	-$0.54 A
2011	-$0.13 A	-$0.09 A	-$0.10 E	-$0.11 E	-$0.43 E
2012					-$0.38 E
2013					-$0.35 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

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WHAT'S NEW

Fiscal Second Quarter 2011 Financials

On December 9, 2010, Oxygen Bio reported financial results for the fiscal second quarter ended October 31, 2010. The company reported revenues of $36K during the quarter, all from OTC sales of Dermacyte. Sales of Dermacyte increased 5-fold from the $7K reported in the fiscal first quarter 2011. Revenues from Dermacyte were derived roughly 50/50 between online and direct marketing. The majority of the sales are coming in areas where management has sales managers, including New York City, Michigan, and Arizona. We note that in October 2010, management hired a sales director with 15 years of experience in dermatological and skin care sales to elevate Dermacyte's effort to date and focus on increasing sales in the future.

Oxygen Bio reported research and development costs of $0.57 million during the fiscal second quarter. Expenses decreased from the fiscal first quarter in 2011 due to lower manufacturing costs for Oxycyte being used in the ongoing phase IIb STOP-TBI program. Costs in the fiscal first quarter also included site set-up fees and equipment at the CRO to expand STOP-TBI into India. R&D costs also include cosmetic skin tests on Dermacyte and increased headcount. SG&A cost in the fiscal second quarter totaled $1.51 million, down slightly from the first quarter in 2011 on decreased legal, accounting, and consulting fees. Expense in the fiscal first quarter also included registration fees relating to the company's listing on the Swiss Stock Exchange. We remind investors that shares of OXBT began trading on the Swiss SIX Stock Exchange in June 2010.

Net loss reported during the fiscal second quarter 2011 totaled $2.06 million, or 9 cents per share. This was slightly better than our forecast for net loss of 13 cents per share. Oxygen Bio exited the fiscal second quarter 2011 with $0.84 million in cash and investments. In October 2010, management entered into an agreement with Vatea Fund to issue an aggregate of $5M senior unsecured promissory notes on or before December 31, 2010. These notes mature on October 31, 2013 unless otherwise requested by the holders. The notes do not accrue interest, instead, on the maturity date, Oxygen Bio will pay Vatea $3M plus the outstanding principal balance. In November 2010, the company received an award of $244K under the Patient Protection and Affordable Care Act of 2010, or PPACA.

Assuming management sells the full allotment of $5M to Vatea, we expect the company to exit calendar 2010 with an estimated $4M in cash and investments. This would be sufficient to fund operations for two additional quarters in calendar 2011. Future dilution is our major concern for the stock right now.

INVESTMENT OVERVIEW

Three Pronged Strategy For Oxycyte

Management has done an excellent job over the past few months to streamline focus into three core areas where they believe they can create shareholder value with Oxycyte. The three areas are: 1) Neurological, 2) Cosmetic, and 3) Topical. We provide an update on all three areas below.

1 – Neurological

…Phase IIb STOP-TBI…

The company's phase IIb traumatic brain injury (TBI) program, STOP-TBI (Safety and Tolerability of Oxycyte in Patients with Traumatic Brain Injury) is currently on hold while management finalizes the new protocol and sites for enrollment in the second cohort. As a reminder, the trial began enrollment in December 2009 with a target enrollment of 98 patients. The initial protocol called for patients presenting to the emergency room with severe, non-penetrating traumatic brain injury at sites in Switzerland (11) and Israel (4). Enrollment in the first cohort has completed and in September 2010 an independent data safety monitoring board (DSMB) cleared the trial to comment enrollment into the second cohort of patient.

However, in an effort to speed up and enrollment through targeting a wider patient population, management filed to amend the protocol to include patients with patients with mild-to-moderate TBI. Management also opened enrollment to Israeli soldiers who suffer severe brain injury during active service. Plus, in May 2010, management formalized a working relationship with global CRO to assist in enrollment and expansion. Oxygen Bio is using the CRO to expand the program into five clinical sites in India. Opening the trial to patients in India creates a potential low-cost avenue to speed up enrollment. Additionally, by allowing patients with mild-to-moderate TBI, the potential patient population is greatly expanded for Oxycyte. Enrollment in STOP-TBI should resume shortly. We are not expecting an update until the entire study completes, perhaps in 2012.

Although we are disappointed with the speed of enrollment over the past year, the changes management has made to expand sites and widen the population should greatly improve the situation in 2011. So far there have been no serious adverse events that would prohibit commencement into the second and third cohorts of the study. According to the CDC, there are approximately 1.5 million people who suffer from a traumatic brain injury in the U.S. each year, about 20% of which are severe (300k). Causes of TBI are diverse, with the top three being: motor vehicle crashes, firearms, and falls. TBI is the #1 cause of disability among those under the age of 35. Roughly 50k people die from TBI each year and 100k people suffer long term disabilities post injury. In the U.S. alone, more than 5.3 million people are currently living with long-term disabilities caused by TBI. The average cost of care for someone post a severe TBI is between $50k and $75k per year.

Early-stage clinical work conducted by Oxygen Biotherapeutics demonstrates that 40% to 70% of damaged brain tissue can be saved by Oxycyte post TBI. Preclinical animal studies demonstrated that rats treated with Oxycyte following a lateral fluid percussion injury (LFPI) had statistically superior scores (lower times to complete) on Morris water maze tests than rats receiving saline solution only.

…Military Interest in Oxycyte Growing…

Army: Another major cause of TBI is Military Blast Injury (MBI). There were an estimated 380k such incidences among American military personnel from 2002-2008. TBI is the largest killer in the war on terror, and primarily occurs due to roadside blasts or bombs. Time to treatment is a significant hurdle to reducing the severity of TBI-MBI on the battlefield. Roughly 50% of military severe TBI survivors suffer major long-term impairments. The ideal medication would be to rapidly provide oxygen rich fluid to the damaged tissue. It must be portable, stable at room temperature, and easy to use quickly after a TBI-MBI occurs. That's Oxycyte! As such, we expect significant U.S. military interest in Oxycyte should the STOP-TBI program offer positive data. In this regard, we are very encouraged by the fact that sites in Israel are now open to Israeli soldiers suffering from severe TBI during service. Management is seeking a grant from the U.S. military to further explore Oxycyte for combat use in this indication.

Navy: We note the U.S. Navy is also looking at Oxycyte for the potential treatment of decompression sickness. An IND for this indication is expected in 2011. In June 2010, the U.S. Navy release data from a study demonstrating decreased mortality in porcine animal models that were given an intravenous dose of Oxycyte emulsion after the onset of decompression sickness (DCS). These results showed a statistically significant decrease in mortality compared with the control group that did not receive Oxycyte. The data was published in the June issue of *Aviation Space and Environmental Medicine*. The authors of the paper are Drs. Richard T. Mahon, Tomas T. Watanabe and Charles R. Auker and Madison C. Wilson, all of the Undersea Medicine Department at the U.S. Naval Medical Research Center. Their work was funded by the Office of Naval Research.

DCS Study	Oxycyte (n=25)	Control (n=29)	p-value
Survival at 24-Hours	72%	45%	p<0.05
Functional Recovery at 24-Hours (% scoring >3 on Tarlov scale)	52%	28%	-

Oxygen Bio and the U.S. Navy have signed a cooperative research and development agreement (CRADA) to continue to study Oxycyte in DCS in preclinical trials. Approval for use of Oxycyte by the U.S. Navy based on animal-rule data could come by 2012. This could be a significant opportunity for Oxygen Bio based on the characteristics of the drug and the potential for broad-scale deployment on U.S. or NATO submarines. In a bullish scenario, we envision the U.S. Navy purchasing Oxycyte for its 250 – 300 submarines with an estimated 100 to 120 doses per ship. The same characteristics that make Oxycyte attractive to the U.S. Army – portable, stable at room temp, easy to use – also fit well within what the U.S. Navy would be looking for on a disabled vessel.

…Preclinical SCI Data Shows Encouraging Neuroprotection with Oxycyte…

On June 3, 2010, Oxygen Biotherapeutics reported that two preclinical studies demonstrated Oxycyte delivered marked neuroprotective effects in rat a model of spinal cord injury. The data show histologically, Oxycyte improved the volume of preserved neuronal tissue in the spinal cord following injury. The data also show a favorable improvement in functional recovery as assessed by footprint analysis six weeks post treatment. The study was entitled, “Possible Role of Hyperbaric Oxygen Therapy (HBO) and Oxycyte After Spinal Cord Injury in Rats," and will be part of the poster sessions at the National Neurotrauma Symposium on June 14-16, 2010 at the Paris Hotel in Las Vegas. Results of the first study entitled "Evaluation of the Neuroprotective and Behavioral Effects of the Perfluorocarbon Oxycyte After Spinal Cord Injury (SCI) in the Rat" were presented in September 2009 at the annual National-International Neurotrauma Symposium by Dr. Ross Bullock, University of Miami Miller School of Medicine. Both studies received funding from Oxygen Biotherapeutics.

This is encouraging preclinical data and allows management to move closer toward filing an investigation new drug (IND) application in spinal cord injury perhaps at some point in the future. According to statistics from various studies compiled by the National Spinal Cord Injury Statistical Center in Birmingham, AL, an estimated 12,000 new cases of spinal cord injury occur each year in the U.S. The number of people living in the United States with SCI is estimated to be approximately 260,000 people. Neuroprotection with Oxycyte remains a core focus for the company. The company is currently seeking a development partner for SCI.

2 - Cosmetic

…Dermacyte Now Available in 10ml Pump Bottles…



On August 3, 2010, Oxygen Bio announced that Dermacyte is now available in elegant, easy-to-use 10ml pump bottles. The bottles can be purchased on the company’s at www.BuyDermacyte.com. The 10ml bottle sells for $84 (about a 1-month supply).

Management is marketing Dermacyte for intended use as a spot application on fine lines, blemishes, scars or imperfections, and dry skin. On August 31, 2010, the company released results from an 8-week cosmetic study on 36 women ages 39-63 with mild-to-moderate facial wrinkles backing up the above claims. The studies investigator, Dr. Steven H. Dayan, MD, of DeNova Research in Chicago, concluded that:

- ✓ 29 woman (~80%) experienced at least one-grade improvement on the Fitzpatrick Wrinkle Assessment Scale (FWAS),
- ✓ 35 woman (~97%) experienced at least one grade of improvement compared to their baseline photos according to the investigator's Global Improvement Aesthetic Scale (GIAS),
- ✓ 30 woman (~84%) has at least a grade of improvement on their self-perception of GIAS,

Oxygen Bio reported Dermacyte sales of $36K during the fiscal second quarter, a 5-fold increase from the $7K reported in the fiscal first quarter 2011. Revenues from Dermacyte were derived roughly 50/50 between online and direct marketing. The majority of the sales are coming in areas where management has sales managers, including New York City, Michigan, and Arizona. Future areas include LA and Miami for the Dermacyte roll-out.

In 2011 we expect management to focus on expanding the direct sales effort. This includes opening up distribution channels into spas and reports, physician’s offices, and retail outlets. Management is looking to partner with a larger cosmetic or pharmaceutical company to better reach consumers in the coming year.

Management is also selling a new Dermacyte Eye Complex formulation in a 15ml bottle available for $120 online. This product adds PFC technology, as well as other ingredients including fragrances and moisturizers such as sunflower oil, avocado essence, vitamin C, and other antioxidants. Dermacyte Eye Complex decreases flakiness, roughness, and dryness around the eye contour area, and reduces the appearance of dark circles and puffiness though increased oxygenation and hydration. It’s an exciting addition to the Dermacyte product suite. Future product lines include facial creams, moisturizers with SPF, hand and body lotions, toners, lip balms, exfoliators, and regenerating serums. These products can be marketed to physician’s offices, spas, sole proprietor boutiques, and non-television direct marketing, and internet through a two-tier-model using the company’s own internal sales force and distributors and network marketing partners.



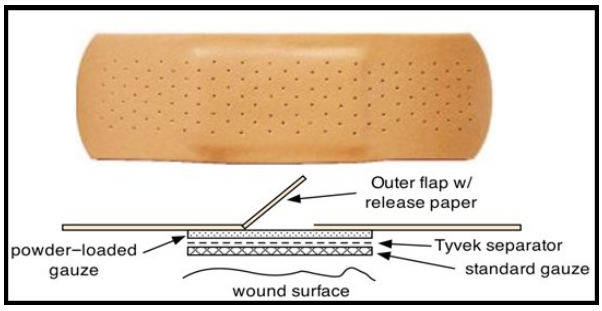
Dermacyte Eye Complex

3 – Topical

…Wundecyte…

Oxygen is critical for the efficient healing by promoting healthy cell growth and recovery in damaged cells. Oxygen is also very important in maintaining an aseptic environment, as many of the more dangerous bacteria of the *Staphylococcus, Streptococcus,* and *Clostridium* class are highly oxygen in-tolerant. This is important in treating wounds, burns, and acne.

In July 2009, management filed a 510K on Wundecyte gel. The company cited previously approved oxygen-producing / oxygen-carrying devices as predicate. The U.S. FDA responded that the bandage will be regulated as a combination device, with the drug component (Oxycyte) requiring extensive preclinical and clinical studies to be conducted prior to the potential commercialization of the product. We note that Wundecyte is being developed in collaboration with a contract lab in Virginia.



Oxygen Bio is also developing an oxygen-generating bandage that can be combined with Wundecyte gel. The product is an adhesive bandage that sticks to the skin as a traditional bandage would, except that the center contains a fabric coated with a magnesium peroxide (MgO_2) powder that releases O_2 when mixed with moisture (H_2O). It is a self-contained system that delivers O_2 to the wound for approximately 6 hours. Management refers to the Wundecyte bandage as a "mini-hyperbaric chamber" able to provide subcutaneous O_2 in an aseptic and economic package.

Wundecyte gel and the oxygen−generating bandage both entered preclinical testing in May 2010. These pig feasibility studies will look at factors such as time to wound closure and reduction in scar tissue formation as compared to a control group. The trial will compare the bandage with and without Wundecyte gel, vs. gel alone, vs. a placebo control. We expect this program to move quickly, with data perhaps early next year. If positive, in 2011 we expect the product development plan is for Wundecyte to emerge into more complex wound−healing indications, also in combination with oxygen−producing technologies based on hydrogen peroxide. This could open the potential to applications in chronic or non-healing wounds.

Once concept has been proved, the next step would be to out-license Wundecyte to a larger organization interested in wound-care. If approved, Wundecyte could be used in the emergency room (about 1.5 million incidences per year) and available OTC, where there are 50 million minor acute skin injuries and 1 million minor burns each year. The most direct competitor in this market would be the product Neosporin, a topical antibiotic with roughly 5% oxygen by volume, or medicated bandages pre-loaded with similar topical medications.

Management is also looking at the opportunity to test topical applications of Oxycyte in pruritis (chronic itching). It's a fairly sizable market with limited treatment options available. We expect that Oxygen Bio will look to partner for these proof-of-concept studies in 2011. Additional topical potential for Oxycyte includes:

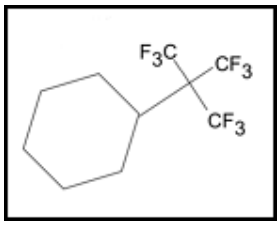
- Adurocyte is the company's oxygen concentration gel specifically for moderate-to-severe burns. Management plans to test these products in combination with a controlled-release hydrogen peroxide for added effect. We expect that management would plan to partner Aduorcyte in sync with Wundecyte when ready.

- Management is conducting pre-IND work on its oxygen concentration gel for the treatment of mild-to-moderate acne vulgaris, an affliction that impacts nearly 20 million Americans each year. Oxygen Bio believes that Acnecyte has potential to reduce acne through a dual mechanism of action: 1) by increasing oxygen to the skin and promoting healthy blood vessel growth to reduce irritation and inflammation and 2) by killing the partially anaerobic bacteria (*P. acnes*) that is linked to causing acne. OTC acne treatments can cost as much as $30 to $60 per month. Prescription treatments can reach up to $200 per month. It is an estimated billion-dollar market for which Oxygen Bio will most likely partner for human clinical trials.

- Future potential for the company's topical oxygen concentrated gel includes uses for the treatment of Rosacea with Rosacyte, radiation therapy with Protectocyte, and sexual stimulation with Duracyte. For this, management is exploring a number of compounds in the monograph route, where an approved generic active ingredient is included in the PFC formulation. The indication for rosacea will probably be packed into a distribution / deal with Acnecyte.

COMPANY BACKGROUNDER

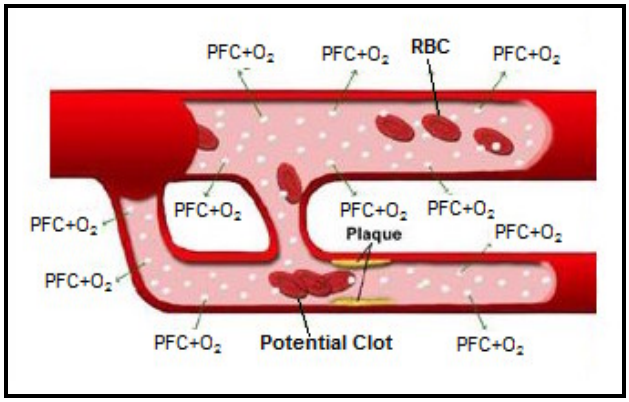
Oxycyte (perfluoro-*tert*-butylcyclohexane, $C_{10}F_{20}$) is the company's third generation perfluorocarbon (PFC) therapeutic oxygen carrier. It is designed to enhance oxygen delivery to damaged tissues. When used as an intravenous emulsion, Oxycyte can carry as much as 4x the amount of oxygen as a normal red blood cell (RBC) despite being nearly 1/50th the size. Oxycyte has 50x greater O_2 solubility and diffusibility than RBCs and can move through the circulatory system at rates up to 2x the speed of hemoglobin. Thus, Oxycyte is highly efficient for transporting oxygen to tissues and carrying carbon dioxide (CO_2) to the lungs for disposal. Oxycyte is not a blood substitute because it does not include white blood cells, antibodies, or plasma. There are no supply issues and no disease transmission / typing or cross-matching limitations. It also has a shelf-life far greater than the 42 days for human donated blood. Oxygen Bio expects to market Oxycyte with a 12 to 18 month shelf-life, although in theory the product could last much longer given its chemically and thermally stable structure. And, because Oxycyte is not based on animal hemoglobin, it does not have the safety issues or antibody formation associated with hemoglobin-based products. In fact, Oxycyte is metabolically inert and offers acceptable organ elimination yielding a very favorable risk-benefit profile for its potential indications.



- ✓ Forms stable emulsion – Superior safety profile
- ✓ Metabolically inert – No antibody formation / No disease transmission
- ✓ Acceptable Organ Clearance / Appreciable Residence Time
- ✓ Carries 4x more O_2 than RBCs, 50x smaller than RBCs
- ✓ Offers 50x higher O_2 solubility and diffusibility
- ✓ Moves 2x faster than hemoglobin through blood stream
- ✓ No supply issues / No cross-matching limitations / Stable at room temp

The above characteristics of Oxycyte massively enhance the ability of oxygen to get from the blood stream to the target tissues. Oxycyte acts as a sort of conduit by facilitating transport of oxygen through plasma. Oxycyte improves the solubility and diffusibility of blood plasma, a rather poor O_2 dissolving substance, by filing in the gaps between RBCs and plasma that previously inhibited transport. Size and movement, along with solubility, play a significant role in this process.

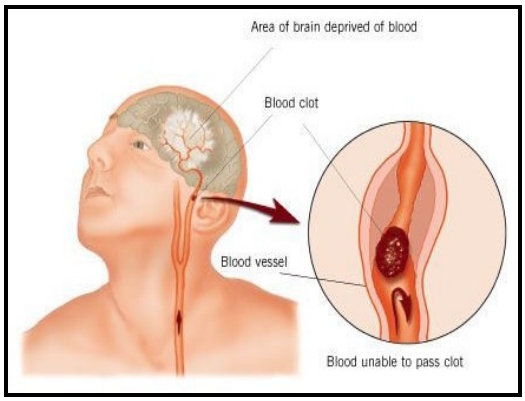
Since Oxycyte is so small and moves so fast compared to RBCs, the candidate has obvious advantages in patients in low-oxygen stress post myocardial infarction or stroke. Oxycyte has the ability to quickly enter these areas or squeeze by a blockage or clot in the arteries far superior to RBCs. However, Oxycyte also offers potential uses for when damaged tissue requires oxygen for survival, such as in the area of traumatic brain injury, decompression sickness and arterial gas embolism, and severe wound treatment.

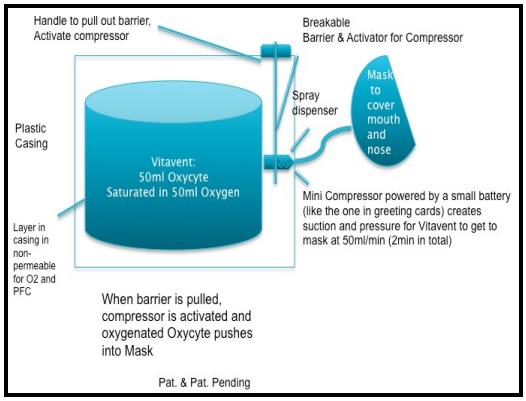


VitaVent For Emergency Ventilation

Traumatic brain injury, decompression sickness, carbon monoxide poisoning, and sickle cell crisis are all excellent potential commercialization avenues for Oxycyte. We are particularly interested in the carbon monoxide indication because it is a non-bleeding focused indication. This eliminates the risk of thrombocytopenia, a potential side effect that the FDA has been concerned with since the phase IIa program in 2006. Carbon monoxide poisoning looks like low-hanging fruit to management. However, the ultimate blockbuster indication for the use of Oxycyte is in cardiovascular disease, more specifically, in the emergency treatment of patients having an acute myocardial infarction or stroke.

As noted above, Oxycyte participles are 1/50th the size of RBCs and carry 4x as much oxygen. Oxycyte travels through the blood stream at rates up to 2x the speed of RBCs. PFC+O_2 have the potential to quickly get to and squeeze by a blocked area, providing oxygen to dying cells. There are an estimated 1.5 million heart attacks and 700k strokes each year. For stroke, only 20-25% of stroke patients arrive at the hospital in less than 3 hours. Over 50% are left with some degree of paralysis or disability as a result. This presents an enormous opportunity to treat patients with ischemia due to a heart attack or blocked artery.





Oxygen Bio is developing VitaVent, a portable inhalation device that is being designed to enhance the delivery of oxygen in the lungs as a pre-hospital “hyperoxygenation” treatment. The initial prototype for VitaVent is a 50ml Oxycyte solution saturated in 50ml pure oxygen, enclosed in a plastic non-permeable casing. VitaVent offers significant advantages over portable oxygen inhalers in that the device has limited mechanical parts, uses no pressure, initiates by no chemical reaction, and has a potential shelf-life of 12 to 18 months. When a patient wants to use the device he/she would simply cover their mouth with a small mask and then break the seal on the container allowing a small battery powered compressor to deliver the solution into the lungs in less than 2 minutes. PFC+O_2 would quickly enter the blood stream potentially saving heart or brain tissue from ischemic death.

The device could be placed in households, cars, public buildings, offices, schools, and restaurants. At risk patients can purchase VitaVent and carry the device around or keep it in their car. The potential target market for VitaVent is enormous. We could see 50 million Americans looking to own VitaVent. Management envisions a target price of $100 per device for VitaVent. The product is still in the early-stage development. Oxygen Bio plans to file a new device application with the FDA prototype when development work has been completed.

RECOMMENDATION

Does Oxycyte do what management says it does? (Key Efficacy Question)

In theory, Oxycyte has the potential to be a wonder drug – a sort of WD-40 of medicine. Preclinical data suggests that Oxycyte has astounding potential for the treatment of traumatic brain injury, decompression sickness, carbon monoxide poisoning, sickle cell crisis, organ preservation, and as a neuroprotectant in patients with spinal cord injury, myocardial infarction or stroke. The effects in TBI were clearly evident in the phase I program conducted by Oxygen Bio in 2006. Data from the phase IIb STOP-TBI will become available in 2012. However, data from small animal studies show that intravenous injection of Oxycyte following lateral fluid percussion injury acts as a neuroprotectant in preserving neuronal cell counts and improving brain tissue oxygen consumption. Other small animal studies suggest that Oxycyte can improve circulating oxygen levels and cerebral blood flow following an induced ischemic stroke. These results suggest that Oxycyte treatment can greatly improved the cognitive recovery and prevent cell damage in patients with TBI, spinal cord injury, or ischemia due to MI or stroke. The high gas solubility characteristics of Oxycyte suggest significant potential in treating decompression sickness, carbon monoxide poisoning, and surgical iatrogenic air embolism. Our research turned up a significant number of journal articles and abstracts that support the empirical efficacy of PFC's and Oxycyte. We also highlight the recent data from the Office of Naval Research published in the June issue of *Aviation Space and Environmental Medicine* as further evidence that Oxycyte works.

- In our opinion, the science and theory behind Oxycyte is outstanding. Additionally, preclinical data is very encouraging. What the company lacks real clinical trial data showing potential in pharmaceutical applications. Oxygen Bio is limited in this respect by cash and the ability to fund these studies. A major partnership would be a tremendous win for shareholders.

Is it safe? (Key Safety Question)

Oxycyte is biochemically and metabolically inert. It is thermally stable, and produces no immune response or antibody formation. Fluosol's clinical development was held up by concerns the drug initiated an immuno-suppressive effect. To date, Oxycyte has been shown to offer no interaction with the immune system. PFC's are clearly safer than hemoglobin based oxygen carrying solutions (HBOCs) when it comes to risk of vasoconstriction. Oxycyte also offers a significant advantage over donated blood in terms of type matching, stockpiling, and infection. The FDA's concern, which ultimately delayed the initiation of a phase II program in the U.S., was on the risk of thrombocytopenia (low platelet count). Theoretically there should be no reason why a small injection of Oxycyte should cause low platelet count. There were no signs of thrombocytopenia in the preclinical or phase I program.

For the phase II STOP-TBI program, management has established a "platelet and thrombocytopenia" task force to assess data collection along with an independent data safety monitoring board (DSMB). If management can alleviate the FDA's concerns on thrombocytopenia as a result of STOP-TBI, U.S. registration trials shouldn't be too far off. Besides TBI, we could see Oxycyte in clinical programs for decompression sickness (DCS) and spinal cord injury through collaboration with the U.S. Navy. The U.S. Navy has established a $3.9 million budget through 2012 to determine he safety and effectiveness of PFCs in the treatment of DCS and arterial gas embolism (AGE). The porcine model data publish in June 2010 from the Office of Naval Research certainly helps move this goal forward.

- We have little reason at this point to be concerned with the safety profile of Oxycyte. The preclinical profile is clean and so far there have been no issues to warrant concern in the phase IIb STOP-TBI program, or from topical or cosmetic use.

Conclusion

We currently have a Neutral rating and $3 target on Oxygen Bio. The company's strong science background and seemingly limitless potential for Oxycyte certainly make for an attractive biotech investment. Additionally, with Dermacyte on the market, the company is starting to generate revenues and create shareholder value through non-clinical applications. That being said, the company is limited by the cash they can raise and the pace at which they can generate the necessary data to keep investors enthused. We are big fans of Oxycyte and believe it has real potential in the future. We are looking forward to the company's next update.

PROJECTED FINANCIALS

Oxygen Biotherapeutics, Inc. – Income Statement

	Apr-09	Apr-10	Jul-10	Oct-10	Jan-11	Apr-11	Apr-11	Apr-12	Apr-13	Apr-14
Fiscal Year	**2009 A**	**2010 A**	**Q1 A**	**Q2 A**	**Q3 E**	**Q4 E**	**2011 E**	**2012 E**	**2013 E**	**2013 E**
Total Product Sales	**$0**	**$0**	**$0.01**	**$0.04**	**$0.06**	**$0.07**	**$0.17**	**$0.35**	**$0.85**	**$1.20**
YOY Growth	-	-	-	-	-	-	-	-	*142.9%*	*41.2%*
Licensing & Collaborative	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0.25**	**$0.50**	**$1.00**
YOY Growth	-	-	-	-	-	-	-	-	*100.0%*	*100.0%*
Total Revenues	**$0**	**$0**	**$0.01**	**$0.04**	**$0.06**	**$0.07**	**$0.17**	**$0.60**	**$1.35**	**$2.20**
YOY Growth	-	-	-	-	-	-	-	-	*125.0%*	*63.0%*
Cost of Goods Sold	$0	$0	$0.00	$0.01	$0.01	$0.02	$0.04	$0.09	$0.21	$0.30
Product Gross Margin	-	-	-	-	-	-	-	-	-	-
SG&A	$7.00	$7.24	$1.88	$1.51	$1.75	$1.85	$6.99	$7.75	$8.75	$10.00
% SG&A	-	-	-	-	-	-	-	-	-	-
R&D	$1.60	$2.92	$1.15	$0.57	$0.75	$1.00	$3.47	$4.00	$4.50	$5.00
% R&D	-	-	-	-	-	-	-	-	-	-
Operating Income	($8.60)	($10.15)	($3.02)	($2.06)	($2.46)	($2.80)	($10.34)	($11.24)	($12.11)	($13.10)
Interest & Other Net	($24.86)	($0.35)	$0.03	($0.00)	($0.01)	($0.02)	($0.01)	($0.15)	($0.15)	($0.15)
Pre-Tax Income	($33.46)	($10.51)	($3.00)	($2.06)	($2.47)	($2.82)	($10.34)	($11.39)	($12.26)	($13.25)
Taxes / Other	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Tax Rate	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*5%*	*5%*
Net Income	($33.46)	($10.51)	($3.00)	($2.06)	($2.47)	($2.82)	($10.34)	($11.39)	($12.26)	($13.25)
YOY Growth	-	-	-	-	-	-	-	-	-	-
Reported EPS (Basic)	**($2.90)**	**($0.54)**	**($0.13)**	**($0.09)**	**($0.10)**	**($0.11)**	**($0.43)**	**($0.38)**	**($0.35)**	**($0.38)**
YOY Growth	-	-	-	-	-	-	-	-	-	-
Wt. Ave. Shares Outstanding	11.6	19.5	23.2	23.4	24.0	25.0	23.9	30.0	35.0	35.0

Source: Zacks Investment Research, Inc. *Jason Napodano, CFA*

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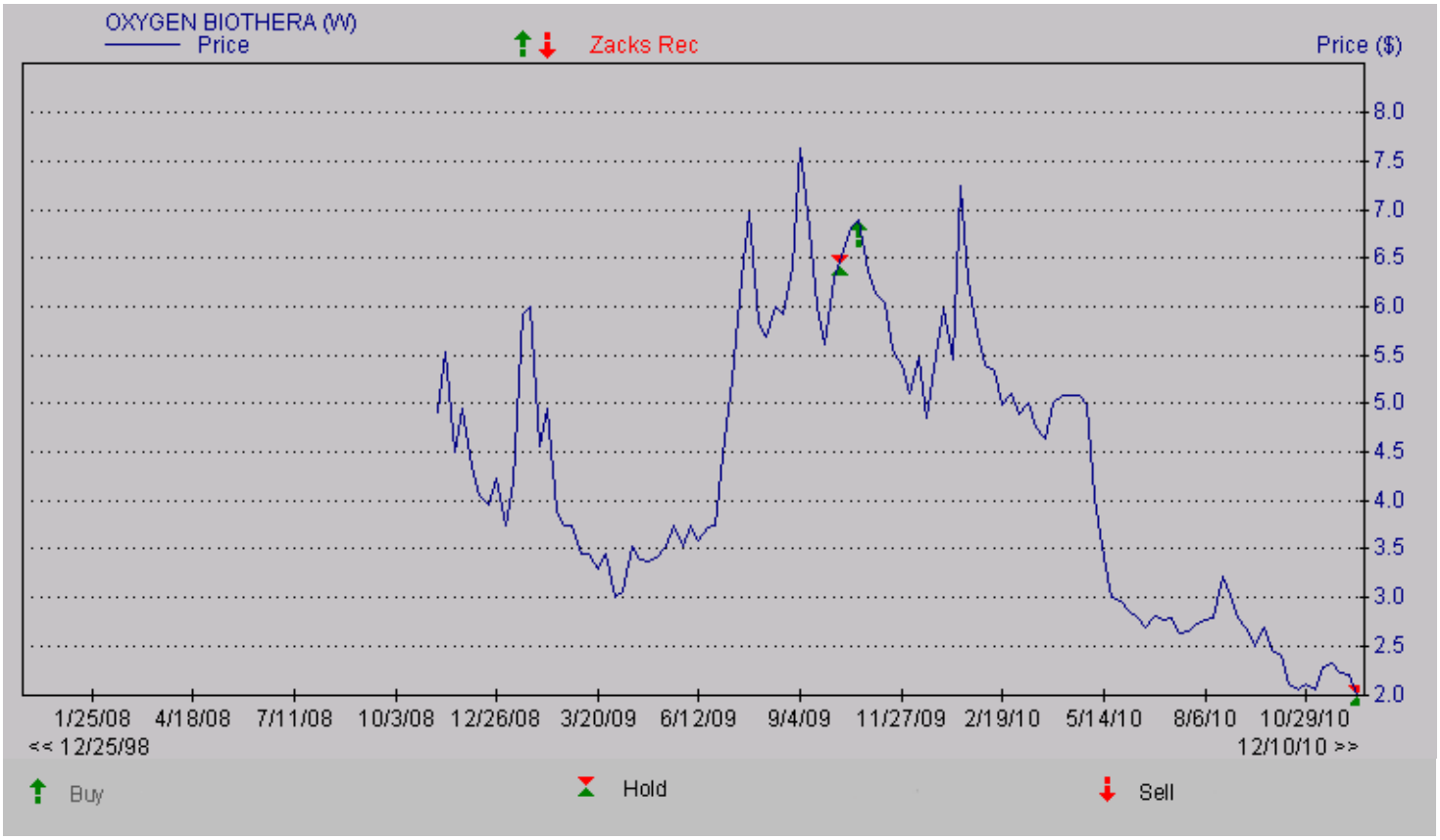

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