Harbinger Research
Independent Investment Analysis

Coverage Initiation Report

United States
Medical Devices

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Vycor Medical Inc. (VYCO.OB - OTCBB)

Vycor Medical Has Breakthrough Product Offerings in the Neurosurgical and Stroke-Related Vision Rehabilitation Markets. We Expect Strong Sales Growth in Late 2012 and 2013, and See Sustainable Hyper-growth Potential in 2014 and Beyond.

Strong Buy

Recent Price: **US$0.02**

Market Data (closing prices, April 30, 2012)

Market Capitalization (mln)	15.6
Enterprise Value (mln)	17.4
Basic Shares Outstanding (mln)	837.5
Fully Diluted Shares (mln)	1,224.4
Avg. Volume (90 day, approx.)	N/A
Insider Ownership	65%
Exchange	OTCQB

Balance Sheet Data (as of December 31, 2011)

Shareholders' Equity (mln)	875
Price/Book Value (as of 10/11/11)	
Cash (000s)	951
Net Working Capital (000s)	(367)
Long-Term Debt (000s)	1,636
Total Debt to Equity Capital	1.87x

Company Overview

Vycor Medical has two product lines that represent legitimate medical breakthroughs in their respective fields. The NovaVision system is the first to provide permanent (albeit partial) restoration of vision lost due to stroke or brain injury, potentially helping millions of sufferers worldwide. The Company's ViewSite Brain Access System (VBAS) improves brain surgery outcomes and reduces overall costs, and in some cases allows "inoperable" procedures to be performed. Both address large markets with new and unique technologies that have the potential to revolutionize their respective fields. The Company is based in Boca Raton, FL, and trades on the OTCQB under the symbol VYCO.

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Summary and Investment Opportunity

- **$1B+ Market Opportunity - First Real Treatment for Stroke-Related Vision Loss**

Vycor's NovaVision helps victims of stroke and traumatic-brain injury permanently regain a key portion of lost vision-field. This is the first treatment for what has been considered a permanent and irreversible condition, and is backed by a strong scientific team, 15 years of research and 20 clinical studies. It is FDA 510(k) cleared, has a strong patent portfolio, and addresses a very large market in the United States, Europe, and around the world. Although we believe it will take NovaVision several years to penetrate a big percentage of this market, its multi-billion dollar size makes this product line a potential blockbuster for Vycor.

- **ViewSite Helps Neurosurgeons Address "Inoperable" Cases and Improves Outcomes**

The transparent ViewSite Brain Access System (VBAS) dramatically reduces the damage caused by "retractors" that surgeons now use to reach sub-surface areas of the brain. It also provides these surgeons with superior visibility during surgical procedures. The net effect of this is improved clinical outcomes, shorter surgeries, and shorter recovery times; in some cases this product's superior attributes have allowed brain surgeons to successfully perform surgeries that would have otherwise been considered inoperable. The VBAS is protected by a strong patent portfolio, and we believe its clinical superiority and cost savings will lead it to become the de facto standard in surgical devices for neurosurgery over the next few years.

- **The Company Should Enter Hyper-growth During the Next Two to Three Years**

Vycor's ViewSite is already making good inroads into the relatively small neurosurgery market, both in the U.S. and overseas, and we expect sales to grow robustly beginning in early 2013. However, we are most excited about the long-term potential of the NovaVision subsidiary, as its products have no real competition and address a global market that could be up to $20B in size. Although NovaVision's products could require several years to achieve market penetration of even 5%, this would still equate to a huge win for a company of this size. Both NovaVision and ViewSite have strong patent protection and backing from the scientific community, and both are FDA 510(k) cleared for sale in the United States.

- **We Believe an Investment in Vycor is Somewhat Risky but Has Exceptional Potential**

Based on solid near-term growth prospects and extreme upside in potential in 2013 and beyond, we are initiating coverage of Vycor with a Strong Buy rating and a target price range of $0.05 per share. Assuming the Company executes on its plan over the next 12-18 months, we believe its current valuation multiple of just 4.2x our 2013 revenue forecast is far too low, and believe a multiple in the 12x to 15x range is more appropriate. Furthermore, we see upside to our estimates if NovaVision is able to achieve market penetration more quickly than we foresee.

P&L (000s)	FY'10A	Q1'11A	Q2'11A	Q3'11A	Q4'11A	FY'11A	FY'12E	FY'13E
Revenues	**316.5**	**145.1**	**142.3**	**231.3**	**452.6**	**971.4**	**2,856.0**	**5,312.0**
y/y Growth	*n/a*	*126%*	*90%*	*225%*	*282%*	*207%*	*209%*	*86%*
Gr. Margin	85%	85%	75%	84%	82%	80%	75%	77%
Op. Income	(1,723)	(911)	(1,805)	(1,110)	(800)	(4,628)	(2,221)	(459)
Op. Margin	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Net Income	**(1,984)**	**(935)**	**(1,835)**	**(1,149)**	**(859)**	**(4,778)**	**(2,381)**	**(659)**
Dil. EPS	**(0.003)**	**(0.001)**	**(0.002)**	**(0.001)**	**(0.001)**	**(0.006)**	**(0.003)**	**(0.001)**
Dil. Shs	**663.2**	**726.7**	**780.8**	**802.6**	**830.0**	**785.0**	**892.5**	**950.0**

Please see analyst certification and required disclosures on page 20 of this report.

Company Analysis

Company Description

Vycor Medical is a developer, manufacturer, and marketer of medical devices that improve on current neurosurgical instruments and on virtually non-existent vision-restoration technologies. The Company has two FDA 510(k) cleared products: one that promises to revolutionize certain aspects of deep-tissue brain surgery, and another that offers stroke and other neurologically caused visual field deficit victims their only real hope of recovering some of their lost vision. The Company has a very strong patent portfolio with 30 granted patents and 30 patents pending, providing it with significant IP protection and creating strong barriers to entry by would-be competitors.

The Company's vision-field restoration products have been shown to meaningfully expand a stroke or TBI victim's field of vision after neurological damage has reduced it, leading to a dramatic quality of life increase for many of those afflicted. Supported by over 15 years of clinical research, the Company's VRT product has already treated some 2,000 patients, and we believe it is the only real therapy for those suffering vision loss due to neurological damage.

The Company's ViewSite Brain Access System (VBAS) offers an enormous improvement over the existing tissue-parting "blade retractor technology" that brain surgeons currently use to reach sub-surface areas of the brain. Using VBAS causes less surgery-related tissue damage, and shortens the duration of both operating and post-operative hospital time (and money). The VBAS' clinical superiority has been well-documented in a number of peer-reviewed articles in leading neurosurgical journals, and has been shown in many cases to enable the performance of what would otherwise be inoperable brain surgery procedures.

We believe the Company has already made good market penetration with its VBAS brain-surgery product, and has a potential blockbuster in its NovaVision VRT product, which faces no real competition in the market at this time. Both of these product lines are currently generating revenues in the market, and are fully ready for large-scale commercialization. Note that Vycor has recently acquired U.K.-based SightScience, which in our view was the only other Company with a viable vision-field restoration product available. This further entrenches the Company's VRT product as the one and only viable vision-field restoration option.

The Company trades on the OTCQB under the symbol VYCO, and is based in Boca Raton, Florida.

NovaVision Vision Restoration Therapy (VRT)

The Opportunity

According to the U.S. Centers for Disease Control (CDC), there are an estimated eight million Americans who have previously had a stroke incident; with 795,000 additional cases occurring annually in the U.S. Additionally, approximately 3.2 million Americans have suffered from some sort of traumatic brain injury (TBI). These numbers are expected to increase further as our population's age profile increases. It is estimated that somewhere between 25% and 39% of these stroke and TBI victims experienced some sort of visual impediments as a result of their ailment. While many of these individuals do improve naturally, the consensus across most studies indicates approximately 16% experience permanent visual field deficits – it is this subset of patients that comprise NovaVision's target market.

Vision loss in these individuals causes profoundly negative effects on their ability to earn income, drive a car, feel independent, and in general experience an acceptable quality of life. While strokes and brain-trauma also impact faculties not related to vision, in many cases stroke and TBI victims report that their quality of life is most heavily impacted by vision loss, a condition previously considered to be "permanent and irreversible."

Stroke and traumatic brain injury (TBI) victims are almost always told by their doctors that vision loss caused by neurological brain damage is permanent and irreversible; these doctors have been taught this "fact" since early in their careers, and they mostly accept it as a fact, without question. However, according to six Company-sponsored studies and fourteen independent studies, conducted over a period of 15 years, this is not a

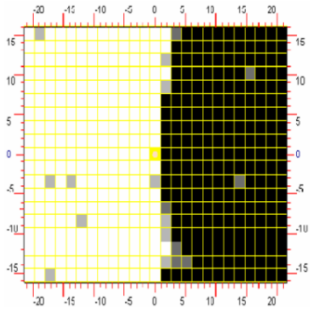
fact at all. It is instead a previously-valid medical conclusion based on old data and technology - it is not based on current research. We believe the new data regarding recently-developed technology (i.e. NovaVision's VRT and NeET) have clearly shown that vision loss can be at least partially restored in most cases, as we discuss below.

The NovaVision Solution

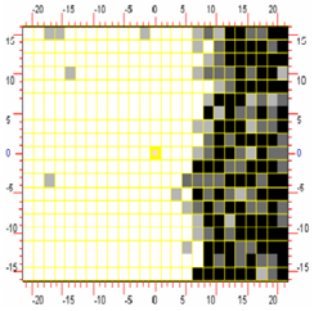
NovaVision, a wholly-owned subsidiary of Vycor Medical, provides the first real hope for those who suffer partial "permanent" blindness due to stroke or TBI - these individuals constitute approximately 16% of all stroke and TBI victims. This hope comes in the form of a computer-based "vision restoration therapy" product (VRT). NovaVision's VRT is an FDA-cleared medical device and both its VRT and NeET products have CE clearance for rehabilitation of vision-field loss resulting from neurological damage. The Company's VRT product is a patient-specific diagnostic and therapeutic platform with extensive clinical data supporting its ability to increase a patient's visual field; more than 2,000 patients have been treated with VRT as of today. Use of recently-acquired SightScience's NeET has also been shown to increase visual sensitivity within the blind field in clinical studies and is marketed in the EU. Note that all other vision therapies available today focus on vision-loss compensation and substitution such as prisms, making NovaVision's products the only commercially-viable, clinically-supported alternative that actual restores some degree of "permanently" lost sight. In our view this constitutes a legitimate medical break-through that should eventually improve the lives of millions.

NovaVision's VRT product uses computer-generated light patterns to stimulate nerves in or near the brain's optical centers, where light is processed and interpreted. Over fifteen years of clinical research, it has been shown that **in approximately 70% of cases patients using NovaVision's VRT system over a three to six month period experience significant recovery in at least one functional outcome.** In many cases this recovery is enough to restore lost abilities such as reading, avoiding unseen objects while walking, or in some cases even driving a car. Although this therapy addresses only 16% of stroke and TBI cases, this still represents a huge market for Company of this size. As the Company's VRT system becomes widely adopted by physicians, rehabilitation centers, physician centers, and by the patients they treat, it should permanently change the way we think about and treat event-related vision loss.

Impairment and Improvement with NovaVision's VRT System



Pre-Treatment Vision Field Map



Post-Treatment Vision Field Map

Pre-Treatment Example of Vision Field

Post-Treatment Example of Vision Field

Various types of vision deficits can occur after a stroke, TBI, or acquired brain disorder, including inability to recognize objects or faces, color-vision deficits, and difficulty in perceiving certain types of motion. These conditions occur because of damage caused to specific regions of the visual cortex or its connecting neural network. Many victims of these injuries and maladies do improve naturally shortly after injury, with significant recovery becoming less likely in the acute phase- unless there is further intervention with NovaVision's VRT or NeET.

After brain injury, recovery of function can be initiated by visual stimulation of the following channels:

- A "luminance flux" channel, which signals the presence or absence of light in a particular part of the vision-field
- A spatial channel, which signals the presence of and assists in the processing of spatial patterns, such as a human face or other physical objects

Both of these neural systems exhibit distinct forms of light recognition and processing, although evidence suggests that this distinction is blurry (no pun intended) and that significant functional overlap exists. According to the Company, the NovaVision VRT system creates therapeutic effect by stimulating the luminance flux channel, whereas SightScience's NeET system targets the spatial channel.

Although its mechanism of action has not yet clearly been scientifically understood, we and the Company believe its VRT and NeET systems are effective because of a brain characteristic known as ***neuroplasticity***. Neuroplasticity refers to neurons' ability to form new interconnections and strengthen existing but dormant neuronal pathways in response to brain injury and tissue death, meaning that the brain can literally alter neural function to compensate for lost brain capacity. We believe that neuroplasticity is responsible for the clinical improvement that both of the Company's systems have demonstrated, although the exact mechanism by which this "neural re-mapping" occurs is a hotly debated topic in the medical community. The Company holds the view (supported by clinical evidence) that its VRT system stimulates the use of previously dormant neuronal pathways in the blind/sighted border regions (in the luminance flux channel), whereas its NeET system improves sensitivity deep in the blind regions, probably through enhancing activity in the remaining intact neural tissue in the spatial channel.

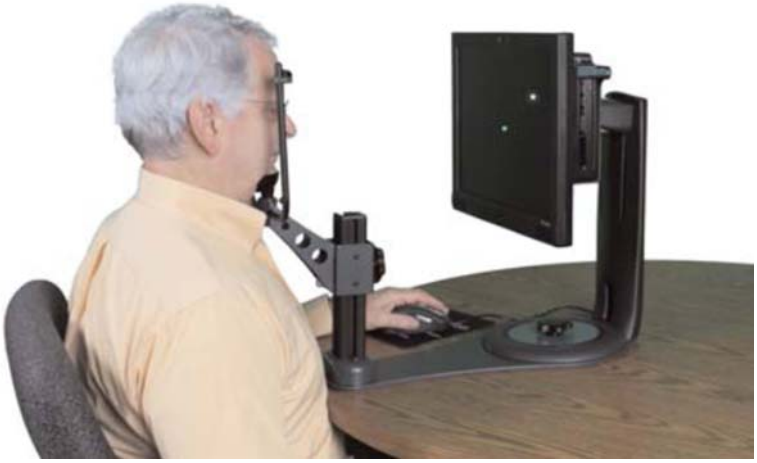
However, the technology to induce visual neuroplasticity has only recently become commercially available - a fact which we believe is directly responsible for the pervasiveness of the medical community's belief that vision loss due to brain damage is permanent and irreversible. The Company has clearly shown that this is simply not true, and that in many cases stroke and brain-injury victims can and should be able to experience significant vision recovery. Therefore, we believe NovaVision's primary challenge is not in clinically proving that its solution is effective, but rather in overcoming the medical community's "cognitive inertia" - a form of cognitive error that typically accompanies long-held (but sometimes inaccurate) beliefs. This will require the Company to achieve significant success in its marketing efforts, as well as gains in its ongoing endeavor to attract the support of thought-leaders in the industry. Success in these initiatives will require time, additional capital, and consistently effective strategic decision making; investors cannot be certain that the Company will succeed at any of these initiatives at this time, although the Company's current direction, financial backers, and the quality of its Scientific Advisor Board give us considerable comfort in these regards.

The Company does have competent leadership, strong scientific backing, a unique breakthrough VRT product, and (through its predecessor) has already invested approximately US$50M on the development and commercialization of the VRT product. Due to these factors, and despite the difficulty of overcoming the aforementioned challenges, we believe the Company is very likely to achieve at least modest sales success during 2012 and 2013, and could achieve real industry dominance within next three to five years. If achieved, this industry dominance would almost certainly expand annual VRT revenues to well over $50M, and would most likely have strong positive effects on VYCO earnings and market valuation as well.

Products - The NovaVision VRT and SightScience NeET Therapy Systems

The NovaVision VRT product consists of an integrated head position-fixing hardware and a computer display that presents the patient with therapeutic light patterns. The system makes ongoing assessments of each patient's current field of vision, and presents light just on the border of what the patient can currently perceive, driven by the Company's proprietary algorithms and patented therapeutic approach, and by the monthly therapy adjustments made by Company personnel. The Company states that users of the VRT system report an average improvement of five degrees in their vision field, which on the surface seems relatively small. However, humans' competency at standard functional tasks is driven almost entirely by the central ten degrees of vision, making a five-degree improvement extremely significant.

NovaVision's VRT Therapy in Action



The VRT system adjusts its parameters specifically for each patient so as to consistently and systematically stimulate all sighted/blind border areas. NovaVision's VRT includes both diagnostic and therapeutic treatment components. The VRT's diagnostic system examines a patient's current visual field by presenting the patient with light sequences throughout the entire potential field of view, each of which the patient indicates as visible or not visible. Based on this patient feedback, the system dynamically develops a granular map of the patient's current vision-field for use in therapy design and adjustment.

Once the system has mapped the patient's initial field of view, it proceeds by presenting the patient with light sequences at the borders of his or her current view-field, thus (we believe) training the patient's brain to build new neural pathways that enable and improve vision in those regions. As the treatment progresses, the system periodically reassess the patient's field of view and NovaVision's clinician adjusts each patient's therapy as-needed. This has the net effect of gradually expanding the patient's field of view (over a period of three to six months) by an average of five degrees and sometimes by as much as ten degrees.

Because patients must use the VRT twice daily for three to six months, and because many of them are the victims of serious strokes or traumatic brain injuries, this treatment regimen can prove quite challenging to follow. However, for those patients who have followed this treatment regimen, the Company reports the following therapeutic facts and benefits:

- Studies indicate that 88% of patients experience an improvement in at least one of their daily life activities due to VRT therapy, which they may or may not experience as an expanded visual field. Although on average the Company's VRT expands the visual field by only 5 degrees, this is quite significant, given that just the center 10 degrees of visual field account for success at performing most focal and vision-related cognitive tasks. However, note that a causal relationship between vision-field improvement and functional task improvement has not been clinically proven.
- A full 75% of VRT patients experience an improvement in their mobility as a result of therapy. Mobility is regarded as the most important functional task related to field of vision loss in stroke and TBI victims.
- The improvement conferred by VRT is permanent.
- VRT's efficacy is not related to how much time has elapsed since a patient has suffered a stroke or brain injury, making it a viable therapy for even decades-old injuries and conditions. For example, one of the Company's success stories involves restoring some of a patient's vision lost during a World War II injury that occurred decades before treatment commenced.
- Therapeutic results have not been shown to be age or gender related.
- The Company's NeET has been demonstrated to induce increased sensitivity to moving/flashing objects within the blind visual field, as opposed to VRT which has therapeutic benefit only on the

sighted/blind boundary. The increased blind-field sensitivity ensuing from NeET treatment can be crucial in allowing patients to spot vehicles and people approaching within their blind area. In fact, a number of patients have even reported being able to regain their ability to drive after VRT and NeET, although this is not the standard outcome and is certainly not guaranteed by the Company.

Because of NovaVision's FDA clearance of its VRT product (granted in 2003) and because of the large body of research supporting this product's clinical efficacy, we believe that it could and should become the de-facto standard of care for treating stroke-related and TBI-related vision-field loss. To see this happen, the Company does face significant product and marketing challenges - although none of them insurmountable - which we discuss in the sections below.

Products in Development

SightScience

The Company recently acquired U.K.-based SightScience, which is selling its NeET CE Marked system in Europe. In our opinion this product was the only commercially-available competitor to NovaVision's VRT product. Although SightScience uses a different therapeutic mechanism than NovaVision's VRT, and operates in the blind-field as opposed to the sighted/blind border area, it accomplishes a similar result in terms of functional improvement. This sharply contrasts with other "competitive" products, which are largely geared to helping stroke and TBI victims learn to cope with or "work around" vision-field loss, rather than to actually ameliorate the condition. The SightScience offering and technology is complementary to that of NovaVision's VRT, and we expect significant product development and marketing synergies to result from the SightScience acquisition.

Next-Generation VRT

The Company believes that its next-generation VRT product will incorporate both its current light-stimulation technology and the technology underlying SightScience's NeET into a single therapy. This model may also contain saccadic training exercises as a portion of the therapeutic regimen, which teach the patient to use greater eye movement to compensate for regions of the vision-field that have been lost. The idea behind integrating these technologies into a single product is that since all three technologies are complementary, a next-generation product with integrated technology should (and probably would) provide better results than any single-technology product could on its own. While the Company believes that its next-generation VRT product will be able to function under the current product's FDA 510(k) clearance, it does plan to commission a study of its new product to spur widespread adoption by government-run healthcare programs such as that of the United Kingdom. Over time, we believe the release of this new product along with the completion of the planned clinical study should put the Company well on its way to the industry dominance we believe it will eventually achieve.

Web-based Therapy

Lastly, but very importantly, as a component of the Next-Generation VRT, the Company is pursuing the development of a self-adaptive Web-based version of its new therapy system - including VRT, NeET, and a Saccadic training module, which management tells us to expect sometime in mid-2013. This product entails several surmountable technical challenges, such as accounting for various display resolutions and brightness settings (making the therapy computer-platform independent), and most importantly, encoding what is currently a manual monthly adjustment cycle in software that will self-adjust. Unlike the currently available product, a Web-based product will allow patients to use their existing, and therefore familiar computer, enhancing system convenience. Furthermore, given the inclusion of VRT, NeET, and Saccadic training in the Web therapy, we believe it is likely to bring a higher degree of benefit to a larger percentage of patients. In addition, this system will have two pronounced cost advantages: no client-side hardware requirement (other than a chin rest), and no manual system-adjustment requirement, since this system will self-adjust based on a patient's progress and specific vision challenges. ***These two cost advantages will allow the Company to offer its VRT therapy system at a much more affordable price point, and therefore make it appeal to a far broader, global target market, while simultaneously allowing it to maintain or even expand gross margins. We believe the combined effects of these cost, convenience, and market-reach advantages cannot be overstated, and could lead to 10x-20x***

revenue growth and pronounced profit growth for NovaVision (and its parent Vycor) over the next three to five years.

Head-Mounted Perimetry

The Company is also in late-stage development of its second-generation head-mounted perimetry product (which we have used ourselves); this product allows point-of-care givers such as optometrists and their assistants to test a patient's field of vision very conveniently and easily - so easily that immobile patients can even conduct the test on their own. This device was almost "fun to use" and we believe it will experience significant sales in the point of care market, as practitioners in this business face intense competition and are likely to see this "high tech" product as a positive differentiating factor in new patient acquisition and patient retention. This product also offers the advantage of portability, allowing vision tests to be administered to patients who are immobile, such as those more seriously injured by stroke or TBI. We also believe that as use of this product ramps up, it will create significant additional sales for the Company's flagship VRT product, as practitioners can screen (and get patients comfortable with) the head-mounted perimetry (HMP) device, and then move on to the Company's VRT device for actual vision restoration therapy.

The Company's head-mounted perimetry (HMP) system, which is FDA registered as a Class I device, consists of a Dell laptop computer, perimetric goggles, and the Company's proprietary software application. Because it is battery-operated and fully-portable, it offers a large benefit to mobility-compromised patients who are unable to use a traditional table-mounted system. Patients who often fall in this category include the elderly, victims of TBI caused by motor vehicle accidents and military combat, and those who are essentially bedridden due to severe stroke events and other brain-damaging events.

Diagnosing Potential Field of View Problems at the Point of Care - NovaVision's HMP Product

Current Head-Mounted Perimetry (HMP) Product

Target Market, Adoption Drivers and Sales Strategy

Target Market

Given available information and the Company's experience to-date, management estimates NovaVision's addressable target market (both stroke and TBI victims suitable for therapy) to be over 1.2 million individuals in the U.S., nearly 1.7 million people in Europe, and approximately 6.6 million throughout the rest of the world. The Company believes that U.S. and EU alone represent a total addressable market size in excess of US$6 billion, and that the total global market potential exceeds US$20 billion. This obviously constitutes an enormous potential market for a Company of this size.

Adoption Drivers and VRT Sales Strategy

Spurring adoption of the current VRT product (and of the VRT / vision-field testing products in development) is a difficult and complex endeavor, largely because of the complexity of the vision-related medical industry. This industry is composed of the following groups:

- **Thought-leaders.** These are typically physicians who have distinguished themselves in research and/or treatment of visual impairments, in this case specifically related to brain injury resulting from stroke, physical trauma, or other brain-damaging conditions and disorders.
- **Prescribing Physicians.** These individuals work in some combination of private practice, physician centers, rehab centers, and hospitals. They tend to rely on thought-leaders' opinions regarding the scientific basis of novel therapeutic approaches - combined with the standards of treatment promulgated by their respective centers and institutions - which highlights the importance of "winning over" key thought leaders in the field.
- **Hospitals.** These include private hospitals, VA hospitals (in the U.S.) and many public hospitals, which are the norm in Canada and throughout much of Western Europe.
- **Physician Centers.** These often exist independent of hospitals and employ a handful to as many as several dozen physicians.
- **Rehab Centers.** These centers are specialized and focus almost strictly on helping stroke and TBI victims, and constitute a natural channel for reaching vision-impaired victims of stroke and TBI.

Due to the adoption-dynamic inherent in this industry, the Company is currently pursuing a multi-faceted sales and marketing strategy. In terms of thought leaders, the Company is pursuing additional progress in convincing key individuals that its solution is effective in doing what it purports to do, namely in restoring stroke and TBI victims' lost field of vision and/or improving their ability to perform basic functions such as locomotion, reading, or even driving. In terms of physician centers, the Company is actively pursuing additional centers based on a key observation: those centers for which the Company has provided a diagnostic device and staff training boast physician prescription rates that much higher than those typical for "standard" prescribing physicians. The Company is still actively working with currently prescribing physicians across the board, however, and is still seeking additional prescribing physicians outside of a "center" environment.

Notably, the Company has also recently begun to aggressively target stroke and TBI rehabilitation centers as a key sales and marketing focus; these centers constitute a natural channel through which to reach large numbers of stroke and TBI victims who can benefit from VRT-based diagnosis and treatment. Vision rehabilitation centers are quite numerous in the U.S., numbering over 200 in the State of Florida alone. We therefore view this sales and marketing focus as being "correct" and believe that vision rehab center penetration will be a key leading indicator of strong future revenue growth.

The Company is currently pursuing all of these sales and marketing avenues in a measured way, which we view as prudent and rational. In regards to vision rehab centers, the Company has made some inroads with vision clinics in the State of Florida, where it is domiciled, and continues to make further inroads as this report is being written. While we believe that all of these approaches are sound, we forecast only slow VRT-related revenue growth in 2012 and H1'2013, due to the Company's current focus on developing and launching its Web-based system.

Note that another constraint currently slowing adoption of the Company's VRT technology is the system itself, which consists of a computer and a piece of table-mounted hardware comprised of a head-position stabilizer and a computer screen. In its current form, patients must have this specialized treatment hardware installed in their home, decreasing its attractiveness to space-constrained patients

Once the Company has a viable Web-based solution available, however, all bets are off. We view this event as very exciting and positive, because for the first time stroke-suffers and TBI-suffers will have a viable vision-field restoration solution directly available to them, which presumably they will find through Internet search as well as via traditional doctor's advice/prescription and marketing messages. Furthermore, the near-elimination of client-side hardware and the reduction in labor costs related to the deployment of a self-adjusting system will

allow the Company to offer this solution at a much more attractive price point, further enhancing its appeal to a broad range of patients across almost all geographies and wealth demographics. This could conceivably have strong "network effects" in terms of doctor awareness as well, leading to a virtuous cycle of doctor adoption and prescription and patient demand, use, and benefit. While we do not presume to know how quickly the Company will be able to develop this market, nor how large it may become, we do believe that it could be developed (relatively) quickly and into an extremely large global business.
Once the Company deploys its Web-based system, we would expect it to immediately dedicate a large percentage of its sales and marketing budget to marketing directly to the patient via online channels, although we do not feel we can estimate when this is likely to occur, beyond management's guidance of "mid-2013."

Scientific Advisory Board

NovaVision has put together what we believe to be a world-class Scientific Advisory Board, consisting of several distinguished researchers and clinicians. Management reports that their Scientific Advisory Board members work with their Chief Scientific Officer Professor Arash Sahraie to help the set strategic goals and to execute on the Company's plan to build awareness and adoption momentum amongst their physician peers. Because of the pedigreed nature of all of its Scientific Advisory Board members, we believe the Company is likely to have greatly enhanced market penetration success, and that execution risk has been somewhat moderated at least on the strategic / product development levels.

The Company's Scientific Advisory board (together with its CSO, Professor Sahraie) currently includes:

Arash Sahraie, *Professor and Chair in Vision Sciences* at the University of Aberdeen (UK)

- PhD in Optics and Visual Science from City University (London, UK)
- Considered one of the leading scientific thinkers regarding visual field deficits and restitution techniques—has published extensively in some of the field's most prestigious journals and an extensive lecturer
- Founder of SightScience Ltd.

Alvaro Pascual-Leone, *Professor of Neurology* at Harvard Medical School and Director of Research at the Cognitive Neurology Unit at Beth Israel Deaconess Medical Center

- MD/PhD in Neurophysiology from Albert-Ludwigs University (Germany)
- Former Medical Fellow at the National Institute of Health
- Reviewed most major journals in the field of neurology, neuroscience, and neurophysiology
- Authored more than 450 scientific papers as well as several books

Jason S. Barton, *Professor of Neurology, Ophthalmology and Visual Sciences*, University of British Columbia

- MD, from the University of British Columbia (Canada) and PhD, in Neuro-ophthalmology from University of Toronto (Canada)
- Former Assistant-Associate Professor of Neurology at Harvard Medical School and Director of Neuro-ophthalmology at Beth Israel Deaconess Medical Center

Joseph Zihl, *Professor of Neuropsychology* at the Department of Psychology, University of Munich (Germany), and Head of the Neuropsychology Research Group at the Max Planck Institute of Psychiatry

- From 2008-2010 he was Research Dean of the Faculty of Psychology and Educational Sciences at the University of Munich.
- He held a Post-doctoral Fellowship at the Max Planck Institute of Psychiatry in Munich from 1975-1977, and became afterwards a senior researcher at the same Institute

Jose Romano, *Chief of Stroke Division and Associate Professor of Neurology* at the University of Miami Miller School of Medicine

- MD, from Universidad Anahuac (Mexico) and residency at Jackson Memorial Hospital
- Extensive publishing record regarding intracranial atherosclerotic disease, small vessel disease, and rehabilitation of hemianopia

Competition

NovaVision's VRT is the only FDA 510(k) cleared medical device that is used to restore visual field loss that results from neurological trauma. The technology may seem simple, but the company has developed a suite of intellectual property assets that cover treating the transition zone between the blind and non-blind visual fields, the blind field itself (though its SightScience patents), the VRT and NeET apparatuses themselves, and the proprietary algorithms that produce the results. Can competitors design around this IP estate? Possibly, but given that it consists of 28 granted patents and another 17 patents pending, it is a very significant roadblock to competition. And while competitors are developing their technologies, if they do indeed do so, NovaVision will be building its brand, penetrating the market, and developing next-generation technologies. We believe that this first-mover advantage is the most important anti-competitive factor working in the Company's favor - even more so than the Company's intellectual property portfolio.

While we believe NovaVision is the first-mover, it is not entirely alone. There are some smaller competitors (mostly German) relying on similar technologies. We do however believe NovaVision is far ahead of these competitors in terms of product quality/completeness and market credibility. Such competitors include:

- **Teltra GMBH.** Teltra is a German company that has been attempting to gain traction in the vision loss treatment market for over 10 years. The company has a very different business model than NovaVision and one we believe is limiting its success. It operates as more of a service company than a product company. As such it must attract patients to its location for treatment. Its treatments consist of having patients sit in a large contraption containing goggles that help to train the patient's vision. This is a capital-intensive business model with a naturally limited reach. It should not be considered serious competition at this juncture.

- **Vision Trainer GmbH.** Vision Trainer GmbH is a tiny German company that sells software for installation on the patients home PC which displays visual stimuli to the patient and provides audio feedback to help train the patient to improve their response. This company appears to be a sole-proprietorship with limited financial means and an unclear business model. We have doubts on this company's ability to survive much less effectively compete.

- **Others?** We do not know of any other directly competing companies at this time, although it is possible that similar VRT systems are either in late-stage development or have been introduced to the market somewhere in the world. Given the Company's base of studies and current market awareness, we feel that any as of yet unknown competitors would like pose little if any competitive threat.

Taken as a whole, we do not believe these competitors represent a real threat to the Company. Given the industry dynamics in this large potential market, we would expect other companies to eventually take notice of NovaVision's technology and enter the market at some point in the future. Although the company has a broad suite of IP protection around its VRT, and has invested some US$50M in its development and commercialization, we believe it is conceivable competitors would try to develop work-around solutions. Nevertheless, NovaVision's advantages are substantial, and technology/IP considerations constitute only some of the barriers to entry a new entrant would face. The company already has first-mover advantage, and we believe practitioners will favor existing and proven technologies over those of new entrants. This should remain true for the foreseeable future, as long as management executes in leveraging its first-mover advantage to rapidly penetrate the market both in terms of sales revenues and physician mindshare.

Other Risks - VRT Market Penetration

Perhaps the most significant risk facing the Company in terms of its VRT offering is the time and cost required to reach "critical mass" in market penetration. We believe that the Company is now allocating marketing resources much more intelligently than did the previous owner of the VRT technology, and we also believe that the Company is an obvious beneficiary of this company's prior expenditures (which total $50M, including marketing and R&D), which were primarily geared towards winning over thought-leaders in the field. That said, until the Company makes large strides in penetrating its markets with its VRT technology - either in its current form or in Web-based form - we will not be fully comfortable that this risk has become insignificant.

Section Conclusion, NovaVision

NovaVision's VRT product and related technologies represent a sea change in the way we think about and treat vision-related that neurological damage resulting from strokes and traumatic brain injury. Because the medical community has considered such damage to be permanent for more than 100 years, the process of educating them and their patients regarding the brain's ability to rewire itself after injury will continue to be an arduous and time-consuming process, although we believe an ultimately successful one.

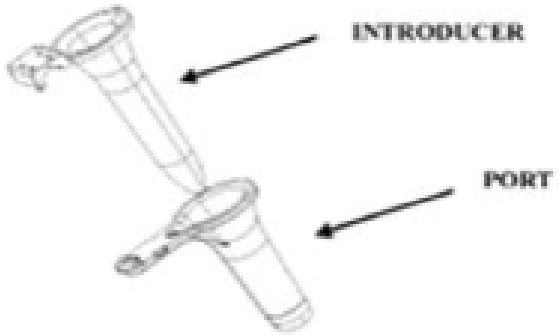
The benefit for investors entering at this juncture is that a lot of that difficult technology evangelizing has already occurred, and sales acceleration could well begin sooner rather than later. Vycor acquired NovaVision after its previous management spent $50 million on developing and commercializing the product. This included funds spent on targeting leading neurotherapy institutions, conducting clinical studies for technology-validation purposes, and garnering patient testimonials; we believe NovaVision is now in a to leverage these expenditures into strong market penetration. This should be especially true once the Web-based product launches, and overall we feel that VYCO shares represent an excellent current value based on our expectations the future results.

ViewSite Brain Access System (VBAS)

Introduction

The company's ViewSite Brain Access System (VBAS) is a disposable product that helps neurosurgeons access and effectively perform procedures on sub-surface brain structures, while also minimizing the damage they cause to overlying and surrounding tissues. Vycor's VBAS accomplishes this quite well, largely due to its obviously superior design. Currently, neurosurgeons access sub-surface regions of the brain by inserting a series of plastic-coated metal "retractors" (shaped like small flexible rulers), and then by spreading these apart to provide access to the brain area targeted by the surgery. This "technology," which has remained largely unchanged for at least the last fifty years, causes significant damage to the surrounding tissues during surgery, due to cutting and shearing caused by the retractors' sharp edges. VBAS, on the other hand, causes very little damage to the surrounding brain tissue, as its design allows it to gently spread the required brain tissue without developing any single point of high pressure. This translates directly into lower rates of contusion and infarction, reduced tissue damage and shorter recovery times. The transparent nature of the device and the stable access it provides are also a big benefit to surgeons, who report generally better surgical conditions with the use of the VBAS system. These technical advantages translate directly into measureable results on both key variables: ultimate clinical outcome, and overall cost.

VBAS Function Diagram and Product Versions



Current "Technology" Used in Deep-Brain Surgical Procedures

Neurosurgery Technology Circa 1950
(Pen included for size comparison at bottom of graphic)

Neurosurgery Technology Today, 2012
(Pen included for size comparison at bottom of graphic)

More specifically, the superior nature of the VBAS' design (versus that of more antiquated solutions) offers the medical community two primary classes of benefit:

Improved Clinical Outcome. By far, the consistently improved clinical outcome VBAS provides is its most important benefit. This comes from two related aspects of the VBAS' superiority: less collateral damage and a superior "on-site" surgical environment. Because the VBAS gently spreads brain tissue - rather than cutting, bruising, and tearing it - patients experience a better overall outcome and a shorter recovery time. This represents a big improvement over the current metal retractor systems, which create pressure points at the edges and tip of each retractor. And because the VBAS product offers surgeons superior visibility of and access to the

target area, they are able to make better surgical decisions in real-time. The net effect of this is a superior surgical outcome. Furthermore, VBAS' benefits are sometimes significant enough that a surgeon is able to address a condition that would otherwise be considered inoperable, translating directly into lives saved that would have otherwise been lost. As should be apparent, the product's real promise to improve surgical outcome for most and to actually give new life to some who would otherwise have lost it is extremely compelling.

Lower Total Cost. While its effect on clinical outcome alone ought to be enough to eventually make VBAS the de facto standard in neurosurgery, we believe the cost benefits will in practice be an important adoption driver as well. Both in private hospitals in the United States, and in public hospitals both here and abroad, hospital administrators are faced with externally-set pricing for each procedure they offer. This means that the profitability of each hospital depends largely on cost control - and a product that can cut surgery times by 30 to 60 minutes and reduce post-op hospital stays by one to two days is very compelling in this regard. Note that the Company is continuing to validate these costs savings and that over time we believe hospital administrators will come to better understand the VBAS' cost/benefit advantages.

Based on the VBAS's clear technical superiority in the marketplace, and based the clear value it provides to both the Medical community and to its patients, we believe that the VBAS product line can and will become the de facto brain access solution over the next few years, both here in the U.S., and overseas in many of the developed and developing economies.

The VBAS Product - Current Specifics and Upcoming Enhancements

Since its introduction in 2010, the ViewSite Brain Access System has been used to perform over 3,000 brain surgery procedures, and it has either been approved or is being evaluated by some 130 hospitals in the United States alone. The system consists of a minimally-invasive, disposable, transparent device that is fully compatible with current image guidance systems. This device is made of two nested plastic components: an introducer inside of a surgery port. During a neurosurgical procedure, the product is inserted into brain tissue and then the introducer is removed, leaving a hollow channel through which the surgeon can access the area of interest. The VBAS' elliptical tubular shape and minimal footprint provide pronounced medical benefit, because it minimizes the initial incision size and eliminates edges, spreading the points of contact over a far greater surface area. The result, management indicates, is that surgeons report less tissue trauma and an excellent ability to see the target area during the procedure. The VBAS also significantly increases a surgeon's field of vision and provides a stable access channel during each procedure, allowing for continual monitoring of the target area and the surrounding brain tissue. As a result, surgeons indicate surgical times are reduced by 30 to 60 minutes, and some surgeons are reporting faster recovery times that equate to patients in some cases to leaving the hospital a full day earlier than they otherwise could.

The product line currently consists of 12 disposable variants, offered in four different port diameters (of 12mm, 17mm, 21mm, and 28mm) and three different lengths (3cm, 5cm, and 7cm). It is FDA 510(k) cleared for sale in the United States, and it is well protected by a strong patent portfolio. Vycor's VBAS is manufactured by Connecticut-based and Pennsylvania-based companies that use GMP (good manufacturing processes) as defined by FDA rules.

The Company plans to introduce a new variant of the VBAS during the coming couple of years, which will be based on the same product technology and design, but geared to accessing brain areas that lie adjacent to the skull wall. This is a clinical need that the VBAS does not currently serve, and the Company believes this new VBAS variant will at least double the size of the market the product line currently addresses. The Company also has a spinal access product called the Vycor Cervical Access System in the early stages of development. The product is based on the same technology embodied in the VBAS product line, but it is targeted towards providing surgeons with access tools for cervical spinal procedures rather than brain surgery. This product will be used to help surgeons more safely access the uppermost vertebrae in the neck, where critical and delicate structures such as the larynx, esophagus and the carotid artery are subject to surgical damage. This device also has 510(k) clearance and is patent pending, but still needs further prototype development before it is ready for launch.

Management is focused on driving the adoption of the VBAS product line both domestically and internationally, and plans to commission further studies to provide additional scientific data in support of this. The Company has in fact already commissioned a comparative animal study at the Minimally Invasive Cranial Surgery Program at the Ohio State University Cleveland, wherein the traditional blade retractor and VBAS will be measured against each other. We and management believes this study will provide further scientific verification of the advantages VBAS has over traditional retractor technology, which should help in terms of market acceptance.

Target Markets and Total Market Size

According to management, there are approximately 500,000 procedures performed in the U.S., Europe, Japan, and China each year that could benefit from the use of existing VBAS products. Furthermore, the Company's planned product line extension will allow VBAS to address another 560,000 procedures per year, performed by the same doctors in these same target markets. The Company has also filed for product registration in Russia and South Korea, which should lead to an even larger addressable market in the near future. We estimate that by the end of 2012 the total addressable market value of the VBAS product line will be approximately $500 million.

Market Penetration and Product Adoption

Since VBAS was launched in 2010, it has been used in over 3,000 surgical procedures, representing just a small percentage of the 500,000 relevant surgeries performed annually. To maximize the rate at which the VBAS system is adopted by the neurosurgeons (both domestically and internationally), the Company has chosen to employ independent distributors and manufacturers' reps rather than an internal sales force. We believe this to be a sound strategy, as these individuals have pre-existing relationships with nearly all doctors that Company wishes to reach. The Company typically pays a 30% sales commission to its independent reps, which the Company believes provides them with more than enough incentive to continue selling VBAS to the neurosurgeons.

United States

Relative to 1,500 target physicians in the U.S., current market penetration at this juncture is relatively small. Going forward, we look to continued hospital approval as an indication the product is gaining additional sales traction. The largest challenge for the Company is in receiving initial hospital approval, but once so approved, sales growth and adoption should be much easier to achieve. In our view, once the product is in use by 20% - 25% of a target market's neurosurgeons, strong sales acceleration is likely to ensue in a short period of time.

International

Vycor is very focused on its international expansion and sees additional significant revenue potential from new international markets. The Company has distribution agreements in place in Australia, China, Japan, the Benelux, Greece, Italy, Spain, Sweden, and the UK. VBAS received SFDA approval in China in late 2011 with an opening order worth $170,000 and has started shipping product under a multiyear agreement with pre-agreed minimums. The Company has also filed for registration in Russia, Korea and is negotiating distribution agreements for Germany, Austria and Switzerland. In 2011 international sales represented 39% of Vycor’s sales, of which China represented 32%. By 2013 Vycor expects international sales to account for well over 50% of total revenues.

Overall

Given the Company's various distributor agreements, we estimate an ASP (average selling price) of $600 per unit in the U.S. (and somewhat lower ASPs in international markets) resulting in a total currently addressable market size of over $500 million per year. With a blended estimate of 80% (normalized) gross margins, this constitutes a very sizable opportunity for a company of this size.

We expect the sales cycle for the VBAS to continue to be long during 2012, up to 12 months or longer, and then to accelerate to somewhat shorter sales cycles as the product becomes more widely adopted and better known. Because this is a relatively new product that is replacing an entrenched (albeit antiquated) technology, it must

pass hospitals' tough "new product" committees and bureaucracies before being allowed into each target hospital.

The initial sales cycle requires surgeons to evangelize the product with their respective hospital committees to some extent; and these committees need to then be convinced of either the product's clinical advantages or its cost benefits, or hopefully both. Reaching neurosurgeons with the Company's sales messaging requires sales agents with good surgeon relationships and reasonable product knowledge, which we believe the Company's distributors have. This takes time, as does inducing hospitals' "new product" committees to evaluate and approve the product. In our view, the initial physician sales cycle requires about six months, and the evaluation and approval by the hospital committee should also take six months on average, resulting in our expected 12-month total sales cycle. Once the initial sales to each hospital have been approved, however, generating follow-on sales should be just a matter of fulfilling orders issued by hospital purchasing agents. Note that the hospital bureaucracy typical in Western nations may not be as pervasive in developing markets such as Russia and China.

Although we believe that dedicated salespeople are typically the best at selling a company's products, the small number of target neurosurgeons (just 1,500 in the U.S.) makes the use of independent distributors and inside sales force an acceptable option. Frankly, we do not believe that a target market of this size will ever support an external sales force of more than one or two professionals, and the Company informs us that it has no plan to change its current distributor-based model. While it remains to be seen if this model will ultimately prove effective at achieving a majority level of market penetration, we do feel encouraged by growth in current U.S. market penetration levels and by the ultimate power of the product's reported clinical benefits and cost-advantages.

Conclusion - VBAS Product Line

In summary, we believe that the VBAS product line offers significant clinical outcome and total-cost advantages versus the alternate products available in the market today, and we also believe that given time the Company's VBAS product has the potential to become the de-facto standard in its class. However, we also acknowledge that the Company faces significant sales and other challenges, which must be surmounted over time for this product to reach its ultimate potential. Overall, we believe the Company is likely to succeed at surmounting these challenges, and we view both its strategy and the VBAS product offering favorably.

Vycor Leadership Team

Vycor Medical is currently led by a combination of industry veterans and those with more financially-related experience. We believe that the Company's current team is excellent, although notably lacking an industry-experienced leader for the NovaVision business. Those key executives the Company does employ seem to have the right operational background and investment experience to help the Company achieve near-term success for the Vycor VBAS products, while also helping it access the additional capital it will need to grow and develop the NovaVision VRT market. Members of this team have acknowledged that when the time is right one of its key additions will be a CEO-type individual who will be responsible for the NovaVision subsidiary, which we believe is reflective of sound, resource-constrained business thinking. In addition, the Company has put together an extremely solid Board of Advisors, many of whom have been and will be instrumental both in product development and in generating broad market acceptance. Also, we note that many members of the leadership team currently take only reasonable levels of equity compensation in return for their day-to-day efforts, rather than draining the Company of its valuable cash reserves. We feel this is an encouraging indication of management's commitment to and long-term belief in Vycor's eventual success.

Kenneth Coviello, *CEO and Director*

- Over 35 years of medical device industry experience
- President of Lumex, a medical device company with $50m in sales
- Senior VP of Graham Field, a medical device company with $300m in sales
- Senior VP of Misonix Medical (NASDAQ Ticker: MSON), a developer of ultrasonic technology with $45m in sales

David Cantor, *President*

- 25 years experience of strategic, corporate and financial advisory and company investment
- Investment Banking (Citigroup, Donaldson, Lufkin & Jenrette, Lehman Brothers)
- Principal of Fountainhead Capital Partners

Peter Zachariou, *Vice President*

- Extensive operating experience as proprietor of a number of businesses in the UK and US in manufacturing, healthcare, retail and leisure sectors
- 15 years active investor in public and private companies
- Focus on capital formation and work-outs with emerging and growth companies

Adrian Liddell, *Chairman and CFO*

- 30 years of strategic, corporate and financial advisory and company investment
- Private equity (Phoenix Equity Partners); Investment Banking (Citigroup, Donaldson, Lufkin & Jenrette, Lehman Brothers)
- Principal of Fountainhead Capital Partners

Financial Analysis

We believe Vycor is in the early stages of hyper-growth, making predicting and appropriately valuing the business quite challenging. However, we have modeled the business and its likely current "fair" value based upon the following assumptions.

VBAS Revenue and Gross Margin Assumptions:

- We forecast total units for FY11 (not including China) to be 884, at an average net selling price of $428, to growing slightly in the US to 1,000 for 2012. This is because FY11 saw an inventory build up at new facilities - such buildups can often results in flat or down unit sales comparisons until normalized sales rates are realized. This will be offset by new customers coming on board, but predicting both inventory balancing and new inventory build-ups is still nearly impossible. For FY13 we are forecasting 3,000 units in the US.

- We expect Chinese sales to begin in FY12 (the first order was shipped in 2011 for a value of $170,000) and result in 9,000 units sold. As is evidenced by our forecast, given the distribution relationship with Vycor's Chinese partner, we expect these units will be sold at significantly lower pricing but in significantly higher volumes. For FY13 we are forecasting 10,000 units in China.

- We expect normalized COGS of $25/unit throughout the forecast horizon. Though we believe these margins could be improved, we are not forecasting such an improvement until volume increases suggest it is likely.

- Vycor has signed numerous VBAS distribution agreements in other regions including Japan, Russia, India and etc. Such agreements come with annual minimums and we believe those minimums can drive unit sales of 2,600 units in 2012 and 4,000 in 2013. We believe those will come at lower margins as is typical of distributed (vs. directly sold) products, but should still entail healthy incremental gross profits.

NovaVision Revenue and Gross Margin Assumptions

- NovaVision's therapy pricing is complicated by differences in pricing and therapy longevity in the U.S. and Europe, and the cost of therapy extensions. In the U.S. the company charges $2,900 for a six-month treatment but gives discounts for those that purchase three months up-front; not all patients undergo six months and some undergo more, so the average selling price overalls is $2,100; revenue is recognized over six months as the therapy is delivered. In Germany the cost is €1,950 (approx $2,550) paid upfront for six therapy months which the company recognizes over 10 months. In the UK the cost is £1,800 (approx $2,800) for 6 months, but 50% of patients extend for three or six months at £175 ($280) per month.

- For FY11 we forecast a total of 190 therapeutic units. For FY12 we forecast 450 therapeutic units, which we expect will grow to 900 units in FY13. We forecast gross margins to achieve a normalized 75% - 80% level during the forecast horizon.

Expenses

- The company has 21 full-time employees that contribute to approximately $3.3mm in G&A expenses per year. Management indicates it has significant non-employee costs that are included in its G&A and expects those to moderate going forward; the inclusion of these expenses in G&A mean that the Company's cost per employee is lower than straight division math would suggest. We believe G&A will continue to increase but a far lower rate than revenues going forward. This will lead to consistent improvement in operating margins.

Estimates and Valuation Analysis

- The net result of our forecasts are revenues of $971k in FY11 growing to $2.9mm in FY12 and $5.3mm in FY13. Operating income is expected to improve from ($4.6M) in FY11 to ($2.2M) in FY12, and to ($0.5mm) in FY13. Our model forecasts operating cash flows of ($2.8M) in FY11, ($1.8M) in FY12 and ($0.3mm) in FY13. This progression represents significant growth in revenues and improvement in cash flows that will figure highly in valuation assumptions, and will potentially lead to profitability in 2014.

- We are also forecasting the company will raise $3 million through equity financing that should increase total shares outstanding by approximately 50M shares, depending on investment pricing of course.

- The company currently has approximately 837M shares outstanding, and at a recent price of $0.0195 per share this equates to a market capitalization of about $16M. However, the company has an additional 387M shares represented by preferred stock (124 million) warrants, options and etc. that are not included in the share count for EPS purposes because they are anti-dilutive as the company is in a net loss position. Those additional shares should be included for market capitalization purposes, assuming the company will eventually earn profits, and as a result the company's true market capitalization is about $23M.

- Typically, discounted cash flow analysis is the appropriate way to value companies. But, given this company's expected hyper-growth position and negative cash flow expectations for the near term, relative multiples are more appropriate as a valuation measure. Since the company is losing money and expects to continue to do so, valuing it as a multiple of earnings does not yet make sense, as there are no earnings upon which to place a multiple. By the end of 2013, when the market should be considering likely 2014 and 2015 earnings (which we expect to be positive) P/E metrics may be appropriate. However, in cases such as this, revenue multiples serve as the most often used proxy for a discounted cash flow analysis.

- For Vycor, the company is currently trading at $0.0195 per share or $23mm market capitalization (fully diluted) which results in a multiple of 24.0x FY11 revenues and 7.9x FY12E revenues.

- Despite the counterintuitive nature of the observation, as companies grow and evidence the hyper-growth the market appears to be expecting, multiples are often observed to contract as the wide range of expectations narrow. As a result, our 12 – 18 month target price implies a revenue multiple contraction to 13x, which when applied to our FY13E revenue estimate of $5.3mm yield a target market cap of $69M. Based on the fully-diluted shares outstanding, this yields a target price of $0.05 per share, implying a return of over 200% from current levels.

- One caveat regarding our target price is that share price appreciation may be hampered by the company's absolute share price, as it is currently a "penny stock." This company has a far different profile than typical penny stocks and can attract some more institutional investors, with greater position capacities and longer holding horizons, once its share price more accurately reflects its potential and development stage. The Company has agreed that it plans to execute a reverse stock split at some point in the near future, which we believe will help it attract some of the institutional sponsorship it really deserves.

Risk Factors

Although we believe Vycor has an enormous amount of growth potential creating significant return opportunities, an investment in VYCO shares carries a high level of risk that investors should not discount too lightly. Those risks are related to size, scope, and execution.

- In its VBAS product line, the Company is displacing an existing, long-established technology. While we believe there are very real and significant advantages of the VBAS vs. existing technologies, getting customers to switch requires more than just a better technology. It requires reaching those customers through an expensive sales and marketing effort. It also requires credibility in the marketplace, meaning customers may be unwilling to buy a superior product if they do not think the company can consistently produce the product or remain a viable company over the long run. Given the company's size and history this may be an issue in terms of customers' willingness to standardize on the VBAS technology, despite its apparent cost and efficacy advantages.

- In the NovaVision VRT business, the Company is likewise introducing a new technology to a new market. In this case, the market is much larger than that addressed by VBAS, which is both good and bad. Good, because of the ultimate revenue and profit potential, and bad due to the magnitude of the sales, marketing, and branding challenge. Entering new markets with new technologies is always a challenge regardless of the product's benefits, and this mean hyper-growth in revenues will take time to materialize, if and when it does. We believe it will, but the predictive visibility in terms of when and to what degree. Again, reaching a large number of potential customers is always a challenge for small companies, and Vycor is not an exception. Without an adequately funded sales and marketing strategy, growth will remain challenging and will take some time to materialize.

- The Company has limited operating history relative to manufacturing and delivering products. There may be, and likely will be hiccups along the way that could delays and missed sales opportunities. We also believe there is execution risk resulting from having some management team members who have limited operating experience.

- Many of the members of senior management have built their careers in the investment banking, venture capital and private equity industries. Although success in these industries requires talented and smart people, the skill sets required are quite different than those for operating companies. We have witnessed this challenge multiple times and are cautiously optimistic this team can execute but it is a risk that should be noted. Key milestones will be the addition of a NovaVision CEO and other key sales and marketing hires.

Investment Thesis and Conclusion

- Vycor is a high-risk company that we believe represents a high return opportunity. The company is staking out unique positions in two large markets with new products that have the potential to displace existing technologies and drive significant growth for the company and shareholders.

- We believe both the VBAS and VRT have enormous potential and are well-positioned to realize that potential. Both products target large markets with unique and value-added solutions that should be appealing to customers.

- The company has significant challenges, particularly its lack of critical mass in sales and marketing. This is typical of small companies such as this, but with good execution by management it can be overcome. As the Company grows, it will be able to afford the larger infrastructure that it needs to achieve critical mass, and as that happens we expect sales and profits to grow exponentially. Success in this regard will involve the Company's ability to manage expenses and access additional capital on a timely basis.

Should management be able to execute as we think it can, we believe we will be able to look back and say the stock was significantly undervalued when we completed this analysis. Assuming the company hits our forecasts, which include $3mm in equity financing in 2012, the stock is currently trading at just $0.0195/share or 4.5x

estimated FY13 revenues. We believe as the company executes that multiple will expand to 13x 2013 revenues, resulting is a market capitalization of approximately $70M. With an assumed 950M average shares outstanding this results in our 12-18 month target price of $0.05. Relative to the current price of $0.0195 our target price represents >200% return in 12-18 months. We are initiating coverage of Vycor with a Strong Buy rating, and believe it warrants consideration by any risk-tolerant, growth-seeking investor.

Our Rating System

We rate enrolled companies based on the appreciation potential we believe their shares represent. The performance of those companies rated "Speculative Buy" or "Strong Speculative Buy" are often highly dependent on some future event, such as FDA drug approval or the development of a new key technology.

Explanation of Ratings Issued by Harbinger Research

STRONG BUY	We believe the enrolled company will appreciate more than 20% relative to the general market for U.S. equities during the next 12 to 24 months.
BUY	We believe the enrolled company will appreciate more than 10% relative to the general market for U.S. equities during the next 12 to 24 months.
STRONG SPECULATIVE BUY	We believe the enrolled company could appreciate more than 20% relative to the general market for U.S. equities during the next 12 to 24 months, if certain assumptions about the future prove to be correct.
SPECULATIVE BUY	We believe the enrolled company could appreciate more than 10% relative to the general market for U.S. equities during the next 12 to 24 months, if certain assumptions about the future prove to be correct.
NEUTRAL	We expect the enrolled company to trade between -10% and +10% relative to the general market for U.S. equities during the following 12 to 24 months.
SELL	We expect the enrolled company to underperform the general market for U.S. equities by more than 10% during the following 12 to 24 months.

Analyst Certification

I, Brian R. Connell, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the recommendations or views expressed in this research report.

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Our Team

Brian R. Connell, CFA **Senior Managing Director**

Mr. Connell has over 20 years' experience in the securities industry, as an equity analyst and portfolio manager, and as the founder and CEO of StreetFusion (acquired by CCBN/StreetEvents), a software company serving the institutional investment community. On the sell-side, Mr. Connell served as the technology analyst for Neovest, an Atlanta-based boutique, and as a Senior Analyst - Internet for Preferred Capital Markets, an investment bank based in San Francisco. Mr. Connell has also held the position of Executive Director of Marquis Capital Management, a technology-focused hedge fund.

Mr. Connell founded Harbinger Research in 2004 with the purpose of providing high quality research coverage to deserving smaller companies. Mr. Connell holds degrees in Economics and Psychology from Duke University, and is a CFA Charterholder.

Scott R. Greenstone, CFA **Senior Research Analyst, Healthcare**

Prior to joining Harbinger Research, Mr. Greenstone founded StratFin, an ongoing enterprise that helps scientific-entrepreneurs build businesses. Prior to forming StratFin, Mr. Greenstone was the head of business development at Varian, Inc., a $1 billion manufacturer of scientific instruments responsible for co-developing global strategy and for sourcing and executing mergers and acquisitions, partnerships and OEM relationships. Previously, he led financial planning and analysis at Symyx Technologies and Xenogen.

Prior to his operating roles, Mr. Greenstone was a research analyst, covering precision instrumentation and life science companies for ten years at several investment banks including Thomas Weisel Partners & Salomon Brothers. Mr. Greenstone has an MBA from the University of Texas at Austin and a B.S. from Lehigh University. He also holds the Chartered Financial Analyst designation.

Mikael J. Asp, CFA **Senior Research Analyst, Technology, Media, and Telecom**

Mikael Asp has over 12 years of investment experience across sell-side equity research, private equity, and hedge funds. Prior to joining Harbinger Research, he was a Technology, Media and Telecom Portfolio Manager for PioneerPath Capital, part of a hedge fund incubation unit in New York. Previously, Mr. Asp was a Senior TMT Analyst at Deephaven Capital in Minneapolis, MN. Mr. Asp also worked at Churchill Capital, a private equity firm based in Minneapolis, MN. Prior to his time at Churchill, Mr. Asp spent three years combined writing sell-side equity research for Piper Jaffray and JPMorgan Chase. Mikael J. Asp is a CFA Charterholder and has a B.A. in Finance from St. Thomas University.

