Vycor Medical Highlights

- Devices are FDA-cleared and are revenue generating – execution risk is now mitigated.
- Over $50m has been invested in the development and validation of the Company’s products.
- Both businesses have limited competition and address significant well identified markets. NovaVision target market estimated globally at >$13bn, US ~ $2bn. ViewSite Brain Access System globally~$700m with product extensions.
- Company has 42 granted and 13 pending patents.
- Significant clinical data on the products have been published.
- Established international footprint.
- Strong product pipeline.
- World class Scientific Advisory Team.
- Each business’ products are “game changers”. Acceptance is highlighted by VBAS adoption in approximately 170 hospitals in the US.

ViewSite Brain Access System
Targeting Solutions in Neurosurgery

ViewSite Brain Access System (VBAS) is a clear cylindrical disposable set of devices of different sizes which neurosurgeons use to provide a surgical corridor to access sites within the brain such as tumors.

Vision solutions targeted at a substantial and largely un-addressed market of people who have lost their sight as a result of Stroke or Traumatic Brain Injury (neurological brain damage). NovaVision has the only 510(k) cleared therapy targeted at the restitution of this type of vision loss.
ViewSite Brain Access System
Targeting Solutions in Neurosurgery

VBAS is set to become the “Standard of Care”

- VBAS is a step change improvement over the current alternative technologies for accessing regions within the brain. Main incumbent devices used are called blade retractors whose technology hasn’t changed in over 50 years.

- Peer reviewed studies from Cleveland Clinic, John’s Hopkins and Weill Cornell indicate that VBAS reduces white matter damage (brain tissue damage) mainly through reduced pressure on the brain tissue being retracted.

- Product has been used in previously inoperable procedures thus saving lives.

- Currently adoption is accelerating and product is in over 170 hospitals in the US, and internationally in Australia, Canada, China, Europe, China, Japan and Korea.

- Significant new clinical data anticipated to be published which will help drive the products’ revenues in 2015 and beyond.

“We would not have attempted this without this technology. It’s very exciting.” (New York Daily News, June 19, 2011)
-Bullet fragment removal – Narayan Sundaresan, MD. Chief Neurosurgeon, Lincoln Hospital, and Professor at Mt. Sinai New York City.

Why NovaVision will become the “Gold Standard”

- NovaVision has a family of therapies that both restore lost vision and address other neurologically-induced vision issues:
  - Restitution: VRT and NeET improve sensitivity in the blind zone
  - Compensation: NeuroEyeCoach re-trains patients to make the most of their remaining visual field
- Both highly complementary

- VRT is the only FDA 510(k) cleared medical device aimed at the restoration of vision for neurologically induced vision loss. VRT and NeET both have CE Marking for Europe.

- No other real competitors – Sight Science was the largest and was purchased in 2012.

- Operations in the US, Germany and UK.

- NovaVision’s technology has strong patent protection 33 issued and 5 patents pending.

- VRT is supported by over 15 years of clinical research, including 20 studies.

“My vision began coming back after the first month of NovaVision VRT, which really surprised me. Now my general vision seems to be back to normal. I passed a driving test and now I am able to drive safely.” -Stroke survivor and VRT patient.
**ViewSite Brain Access System**

**The ViewSite Brain Access Strategy**

VBAS is fully commercialized and is now pursuing a clear strategy to become the “Standard of Care” in brain access for neurosurgical procedures. Management has a well defined four pronged strategy:

**Drive US Market Penetration**

i. Well defined target market of 3,500 neurosurgeons being aggressively marketed to directly with clinical data.

ii. Strengthening distributor network.

iii. Broaden the products usage beyond “deep and difficult procedures”.

iv. Focus on key teaching hospitals.

**Continue to get Clinical data supporting the products superiority**

i. Focus hard on getting as many peer reviewed studies as possible which support the products superiority. Studies and peer reviewed publications already underway with OSU and Cornell.

ii. Develop hard clinical data supporting cost benefit and reduced white matter damage versus the incumbent “blade retractors”.

iii. Address surgeon pigeon holing of the product by developing clinical evidence as to the products broader applicability.

**Strong New Product Pipeline in progress to continue to broaden the products adoption through continued differentiation and greater applicability**

i. A smaller set of VBAS devices.

ii. Developing 4 new devices which would be specifically designed to be compatible with the pointers of different Image Guided Systems - significant potential to drive adoption by leveraging “partners footprint”.

**Greater focus on International Markets**

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**The NovaVision Strategy**

Vycor Medical acquired NovaVision in 2011. While its VRT was clinically supported to be effective, being underpinned by 15 years of clinical research and 20 studies evidencing that approximately 70% of patients benefited from the therapy, further development was required in order: to ensure that all patients received a benefit; to make it cost effective and affordable; and to make it scalable.

Vycor put in place a world class Scientific Advisory Committee and acquired Sight Science in the UK, NovaVision’s only sizeable competitor, thereby also gaining a highly regarded Chief Scientific Officer. Now leveraging this new scientific team to:

- Migrate VRT from a custom made hardware model to an internet-delivered one. This transition would allow the provision of the therapy at a greatly reduced price and allow for much greater scalability.

- Introduce a new complementary eye training therapy into the NovaVision therapy suite to provide broader benefits to all patients.

- Development work is nearly complete. Web deliverable VRT development work will be completed by the end of 2014.

- NovaVision has already completed the development of its web based eye training therapy called NeuroEyeCoach. The therapy is based on over four decades of scientific research and was developed by Josef Zihl a world leader in the field and a NovaVision scientific advisor along with NovaVision’s Chief Scientific Advisor.

- NeuroEyeCoach is marketed as a standalone product as well as with VRT in one internet-delivered therapy suite.

  - Following feedback from US soft launch, two new professional versions are being developed and will be available by end of 2014

- Management believes that upon completion of the development of its web deliverable VRT it will have the most robust clinically supported, affordable and scalable set of complementary therapies, which are commercially available.
ViewSite Brain Access System
Targeting Solutions in Neurosurgery

ViewSite Brain Access System has U.S. FDA 510(k) clearance for brain and spine surgeries, and regulatory approvals for brain in Australia, Canada, China, Europe, Japan and Korea. Vycor has 9 granted and 8 pending patents worldwide. Management is in the process of obtaining regulatory approvals in Brazil, India, Russia and Taiwan.

Highly profitable niche market: $700m market potential for VBAS family, over 70% gross margins (net of sales commissions).

VBAS represents a step-change improvement over current technologies for accessing regions within the brain. The current standard of care utilizes a metal blade retractor to pull the tissue apart. In a typical procedure more than 2 blades are used.

The VBAS is a single-use product whose minimally invasive shape enables the surgeon to access a specific target within the brain with the potential for significantly less damage to the surrounding tissue than the sharp edges of “traditional blade” retractors.

The resultant reduced damage from the VBAS leads to improved surgical outcomes for patients. It is this minimally invasive profile that has led surgeons to use the VBAS in challenging procedures and procedures that were previously considered to be “inoperable” such as tumors that are too deeply seated for current instruments.

The product is gaining increasing traction supported by leading peer-reviewed articles. Management believes that continued scientific data will drive the adoption of the product faster at which point it will become the de facto “Standard of Care”. Clinical benefits cited include: minimally invasive shape which reduces pressure on the brain, improved visual field, improved working channel and more accurate target access.

Management’s strategy is centered on driving adoption further and faster by delivering the medical community with more scientific and clinical data supporting VBAS’ superiority as a minimally invasive access system and move the product further up the cost/benefit curve in the minds of the hospital admission committees.

Weill Cornell Medical Center is in the process of publishing two peer reviewed papers outlining the advantages of VBAS and a comparative animal study has been commissioned with the Ohio State University where the traditional blade retractor and VBAS will be measured against each other.

Vycor believes from surgeon discussions that VBAS offers large potential savings for hospitals from shorter operating theater time and reduced post-operative recovery time. Anecdotal surgeon feedback indicates that VBAS can potentially reduce the operating time by 30-60 minutes and shorten discharge time by a day equating to thousands of dollars per procedure.

International expansion is a key area of focus. Focus markets are: Brazil, larger European markets, Russia, China, Japan and India.

Vycor has a strong new product pipeline targeted to increase the addressable market of its VBAS. Recently Vycor has launched a non-disposable extension arm, which will further facilitate the use of VBAS. This has been developed in direct response to surgeon demand.

Vycor is also working on a development of two smaller VBAS models. This is being developed with a leading neurosurgeon and the market is anticipated to be a substantial addition to the current VBAS model range. Another current area of development is centered on the very sizeable IGS market.

NovoVision

VRT is the only FDA 510(k) cleared medical device in the U.S. aimed at the restoration of vision for neurologically induced vision loss and VRT and Sight Science’s NeET have CE Marking in Europe as Class 1 devices. NeuroEyeCoach is registered in the US as a Class II 510(k) exempt device

Substantial and profitable market for VRT/NeET and Saccadic: $2bn in the US for Stroke and TBI victims, $2bn in the EU and $13bn globally. Over 70% gross margins.

There are approx 8m Stroke survivors in the US who have had a stroke with approx 480,000 new stroke survivors a year, and 5.3m suffering from traumatic brain injury (TBI). Approximately 20% of these experience permanent visual field deficits this is NovoVision VRT’s target market, and is an unmet need: there is no real direct competition either in the US or Internationally after its recent acquisition of Sight Science in the UK (2012).

The VRT therapy is supported by over 15 years of clinical research, with over 20 studies and papers, demonstrating expansion in a patient’s visual field and improved functionality. On average approximately 70% of patients experience an improvement. Over 2,000 patients have been treated to date.

Elapsed time since injury does not appear to impact the therapy’s success enabling a large historical backlog of patients to be potentially treated. Improvements are permanent and do not appear to be age or gender dependent.

Management has assembled a world class Scientific Advisory Team to assist it in addressing this enormous potential, and the technology has significant IP protection with 53 granted and 5 pending patents.

Management and its Scientific Advisors concluded that while its VRT was clinically supported to be effective, further development was required in order to: ensure that all patients received a benefit; to make it cost effective and affordable; and to make it scalable.

A completely new therapy delivery mechanism is in development, moving away from hardware based to an asset light software solution allowing significant cost savings, enhanced through considerable streamlining of VRT’s business processes. This transition will allow the provision of the therapy at a greatly reduced price and enable much greater scalability. Web deliverable VRT development will be completed by the end of 2014.

By introducing a new therapy module into NovoVision’s overall visual rehabilitation therapy regime, patients will receive additional functional benefits. This new therapy, NeuroEyeCoach™, is an internet delivered saccadic training program which is targeted at the same patients as VRT and is highly complementary to it. Stroke patients, in addition to losing their sight, typically also have difficulty controlling the movement of their eyes and integrating visual information. These conditions lead patients to need specific re-training to make effective use of their eyes and get the most out of their remaining vision. NeuroEyeCoach™ will be sold as a standalone therapy; in addition to benefitting VRT patients, those suffering non-permanent defects or those otherwise unsuited to VRT can benefit from NeuroEyeCoach™. Upon completion of the VRT web based development, VRT and NeuroEyeCoach™ will be marketed in one therapy suite providing broader benefit to all patients.

These two key developments will make NovoVision’s therapy regime affordable, scalable, with broader benefits and therefore both attractive and deliverable to the mass market.

NovoVision’s acquisition of Sight Science not only removed the only credible competitor from the market but also added Sight Science’s highly complementary NeET therapy. NovoVision believes that its next generation of therapy will involve a combination of the two therapies.
Experienced Board & Management Team

Peter C. Zachariou, CEO & Director
Mr. Zachariou has extensive operating experience and has been an active investor in a variety of companies and industries, both public & private, specializing in workouts and capital formation.

David Marc Cantor, President & Director
Mr. Cantor has over 25 years experience in Investment Banking with a focus on Mergers and Acquisitions and Equity Capital Raisings.

Adrian Christopher Liddell, Chairman & CFO
Mr. Liddell has more than 30 years of private equity, strategic, corporate & financial advisory and investment.

Steven Girgenti, Director
Mr. Girgenti is managing partner of Medi-Pharm consulting, providing strategic advice to healthcare companies. He is former Chairman of Ogilvy Healthworld, and former President & CEO of DermWorx, a specialty pharmaceutical company.

Dr. Oscar Bronshter, MD, F.A.C.S, Director & Scientific Advisory Board Member
Dr. Bronshter is Clinical Professor, George Washington Univ., Washington DC and Director of Transplant Services at Kaiser Permanente Medical Group. CEO of MetaStat, Inc.

Lowell Rush, Director
Mr. Rush is CFO or Direct Insite Corp. He was previously COO of Cosmetic Dermatology, Inc. and CFO of Bijoux Terner, LLC and Little Switzerland. He started his career with Ernst & Young and Deloitte and Touche.

Pascale Mangiardi, Director
Ms. Mangiardi is presently the founder and President of Rougemont Management Services LLC.

Scientific Advisory Board - Vycor

Dr. David Langer, Director of Cerebrovascular Neurosurgery at St. Luke’s-Roosevelt, Beth-Israel and Long Island College Hospitals.

Dr. Konstantin Slavin, University of Illinois at Chicago (Chicago, IL); Alexian Neuroscience Center (Elk Grove Village, IL); Director of Illinois Gamma Knife Center.

Dr. Ezriel Kornel, Director, Institute for Neurosciences at Northern Westchester Hospital Center (Mount Kisco, NY); President-elect New York State Neurosurgical Society; Board of Directors, Medical Liability Mutual Insurance; Director for Center Neurochiropractic Education.

Scientific Advisory Board – NovaVision

Arash Sahraie, PhD (CSO), Professor, Chair in Vision Sciences at Univ. of Aberdeen (UK); PhD in Optics and Visual Science, City Univ. (London, UK); Founder of Sight Science Ltd.

Alvaro Pascual-Leone, MD/PhD, Professor of Neurology at Harvard Medical School; Director of Research, Cognitive Neurology Unit, Beth Israel Deaconess Medical Center; MD/PhD Neurophysiology, Albert-Ludwigs Univ (Germany); Fmr Medical Flw National Institute of Health; Author 450+ Scientific papers.

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

Joseph Zihl, MD., Professor of Neuropsychology at Department of Psychology, Univ. of Munich (Germany), Head of Neuropsychology Research Group Max Planck Ins of Psychology.

Jose Romano, MD., Chief of Stroke Div and Associate Professor of Neurology at the Univ. of Miami Miller School of Medicine.
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