

NovaBay Pharmaceuticals, Inc.

Initiating Coverage with Strong Buy and \$2.25 Price Target

Promising Anti-Infective Platform Technology

Developing Novel Anti-Infectives: NovaBay is focused on the development of its novel, proprietary and patented anti-infective Aganocide compounds. These Aganocide compounds, led by NVC-422, are synthetic molecules with a broad spectrum of activity against bacteria, viruses and fungi. Because the Aganocide compounds are designed to mimic the mechanism of action used by human white blood cells against infections, they are well suited to treat and prevent a wide range of local, non-systemic infections, and may prove to be valuable in the increasing fight against multi-drug resistant bacteria. The technology is supported by 4 U.S. and 14 foreign issued patents, with more than 61 others pending.

Lead opportunity for NVC-422 to Treat Adenoviral Conjunctivitis: The most significant opportunity for NovaBay is the potential to use NVC-422 to treat patients with adenoviral conjunctivitis. Conjunctivitis ("Pinkeye") is a common eye inflammation that can be caused by bacteria or viruses. There is currently no FDA approved treatment for conjunctivitis that is caused by adenoviruses. Proof of concept for NVC-422 to treat certain serotypes of adenovirus that can cause a more severe form of the disease, epidemic keratoconjunctivitis (EKC), was demonstrated in a previous Phase 2 study conducted by Alcon. The Company is currently enrolling patients in a Phase 2b clinical trial. Results from this study should be available in Q4, 2013.

Second Opportunity For Impetigo is Partnered With Galderma: NovaBay is also evaluating a topical gel formulation of NVC-422 as the treatment for impetigo. Impetigo is a highly contagious superficial bacterial infection of the skin that affects mostly children. NovaBay has entered into a collaboration agreement with Galderma, a global specialty pharmaceutical company focused on dermatology, to develop this and other applications in dermatology. Proof of concept for NVC-422 to treat impetigo was demonstrated in a previous Phase 2 study. Galderma is currently enrolling patients in a Phase 2b clinical trial. Results from this study should be available in mid-2013.

Current Valuation Attractive: We believe that NBY is an intriguing speculative small cap investment story. With three ongoing Phase 2 clinical studies, we believe that the shares are undervalued at the current price. Our 12-month price target of \$2.25 is calculated using an NPV analysis.

Company Description

First incorporated in 2000 as NovaCal Pharmaceuticals, and headquartered in Emeryville, California, NovaBay Pharmaceuticals, Inc., is a clinical-stage biotechnology company, focused on the development of various product candidates for the therapeutic needs of the anti-infective market.

COVERAGE INITIATION

Rating: Strong Buy

Ticker: NBY

Price: \$1.18

Target: \$2.25

United States
Healthcare

March 5, 2013

Keay Nakae, CFA
(949) 259-4933
knakae@ascendant.com

Stock Data

| | |
|--------------------------------------|--------------------|
| Exchange: | NYSE MKT |
| 52-week Range: | \$0.88 -1.76 |
| Shares Outstanding (million): | 37 |
| Market cap (\$million): | \$44 |
| EV (\$million): | \$29 |
| Debt (\$million): | \$0 |
| Cash (\$million): | \$15 |
| Avg. Daily Trading Vol. (\$million): | 0.4 |
| Float (million shares): | 31 |
| Short Interest (million shares): | 1.1 |
| Incorporation: | Delaware |
| Public auditor: | Davidson & Co. LLP |

Revenues (US\$ million)

| | 2011A | 2012E | 2013E | 2014E |
|--------------|--------------|-------------|-------------|-------------|
| Q1 Mar | 2.5A | 1.3A | 0.9E | 2.7E |
| Q2 Jun | 4.5A | 0.9A | 0.7E | 1.0E |
| Q3 Sep | 2.8A | 3.6A | 4.3E | 1.1E |
| Q4 Dec | 1.2A | 1.2E | 1.1E | 1.2E |
| Total | 11.0A | 7.0E | 6.9E | 6.0E |
| EV/Revs | 2.8 | 4.3 | 4.4 | 5.1 |

Earnings per Share (GAAP)

| | 2011A | 2012E | 2013E | 2014E |
|--------------|----------------|----------------|----------------|----------------|
| Q1 | (0.08)A | (0.09)A | (0.09)E | (0.05)E |
| Q2 | 0.02A | (0.08)A | (0.10)E | (0.08)E |
| Q3 | 0.00A | 0.00A | 0.00E | (0.08)E |
| Q4 | (0.13)A | (0.09)E | (0.09)E | (0.08)E |
| Total | (0.19)A | (0.25)E | (0.28)E | (0.29)E |
| P/E | N/A | N/A | N/A | N/A |

EBITDAS (US\$ million)

| | 2011A | 2012E | 2013E | 2014E |
|--------------|---------------|---------------|----------------|----------------|
| Q1 | (1.5)A | (2.1)A | (3.3)E | (2.0)E |
| Q2 | 0.8A | (2.4)A | (3.6)E | (3.7)E |
| Q3 | 0.0A | 0.3A | 0.2E | (3.6)E |
| Q4 | (2.1)A | (2.7)E | (3.3)E | (3.6)E |
| Total | (2.8)A | (6.8)E | (10.1)E | (13.0)E |

EBITDAS defined as earnings before interest, taxes, depreciation, amortization and stock-based compensation.

Important Disclosures

Ascendant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 17.



CONTENTS

| | |
|---|----|
| INVESTMENT THESIS..... | 3 |
| AGANOCIDE IS A NOVEL ANTI-INFECTIVE PLATFORM TECHNOLOGY | 4 |
| LEAD PROGRAM FOR NVC-422 TO TREAT VIRAL CONJUNCTIVITIS..... | 5 |
| NVC-422 TO TREAT IMPETIGO IS A SECOND OPPORTUNITY..... | 7 |
| NVC-422 UROLOGY APPLICATION | 9 |
| NEUTROPHASE FOR NON-HEALING WOUNDS..... | 9 |
| INVESTMENT RISKS..... | 10 |
| MANAGEMENT | 11 |
| FINANCIALS..... | 12 |
| VALUATION..... | 12 |
| OTHER COMPANIES MENTIONED IN THE REPORT..... | 13 |
| FINANCIAL MODEL..... | 14 |
| ANALYST CERTIFICATION | 17 |
| IMPORTANT DISCLOSURES | 17 |

Exhibit 1: NBY Stock Price (5 Years)



Source: Nasdaq.com

INVESTMENT THESIS

We are initiating coverage of NBY with a Strong Buy rating and 12-month price target of \$2.25. We believe that NovaBay represents an intriguing speculative small cap investment story. NovaBay is a clinical-stage biotechnology company, which is focused on the development of its novel, proprietary and patented anti-infective Aganocide compounds. These Aganocide compounds, led by NVC-422, are synthetic molecules with a broad spectrum of activity against bacteria, viruses, and fungi. Because the Aganocide compounds are designed as stable analogs that mimic the mechanism of action used by human white blood cells against infections, they should be well suited to treat and prevent a wide range of local, non-systemic infections, and may prove to be valuable in the increasing fight against multi-drug resistant bacteria. The Company's compounds are supported by 4 U.S. and 14 foreign issued patents, with more than 61 others pending, which provide composition of matter protection out to 2028.

NovaBay is focusing its NVC-422 product on three distinct therapeutic areas: dermatology, ophthalmology, and urology, for which they have already demonstrated therapeutic proof-of-concept in three Phase 2 clinical studies. The Company has also obtained FDA 510(k) clearance for its NeutroPhase wound cleanser for the treatment of non-healing wounds. Hence, NovaBay should be viewed as consisting of four business units, each with its own commercial prospects. In dermatology, NovaBay has a collaboration and license agreement with Galderma, which is a large global pharmaceutical company that generates over \$1 B in annual sales. Galderma is responsible for the development and commercialization of NovaBay's Aganocide compounds for the treatment of acne, impetigo and potentially other major dermatological conditions. In wound care, the Company's NeutroPhase product is sold through a number of distributors OUS, including Pioneer Pharma Co. in China and select Asian markets. The initiatives in ophthalmology and urology are currently unpartnered, but should current Phase 2 clinical studies in each area demonstrate positive results, we believe that this could lead to additional collaborations.

We believe that NovaBay should have a number of potential catalysts that could drive the value of the stock higher over the next 12 months. Topline data from a Phase 2b clinical trial evaluating the use of NVC-422 in impetigo, being conducted by its commercial partner Galderma, should be available around mid-year. Topline data from its Phase 2 clinical trial evaluating the use of NVC-422 in treating urinary catheter blockage and encrustation (UCBE) should be available in Q3 2013. Topline data from its Phase 2b clinical trial evaluating the use of NVC-422 in adenoviral conjunctivitis should be available in Q4 2013. Finally, the Company could also announce new partnerships for the distribution of NeutroPhase in the U.S. and other countries.

Exhibit 2: Nova Bay Product Development Pipeline

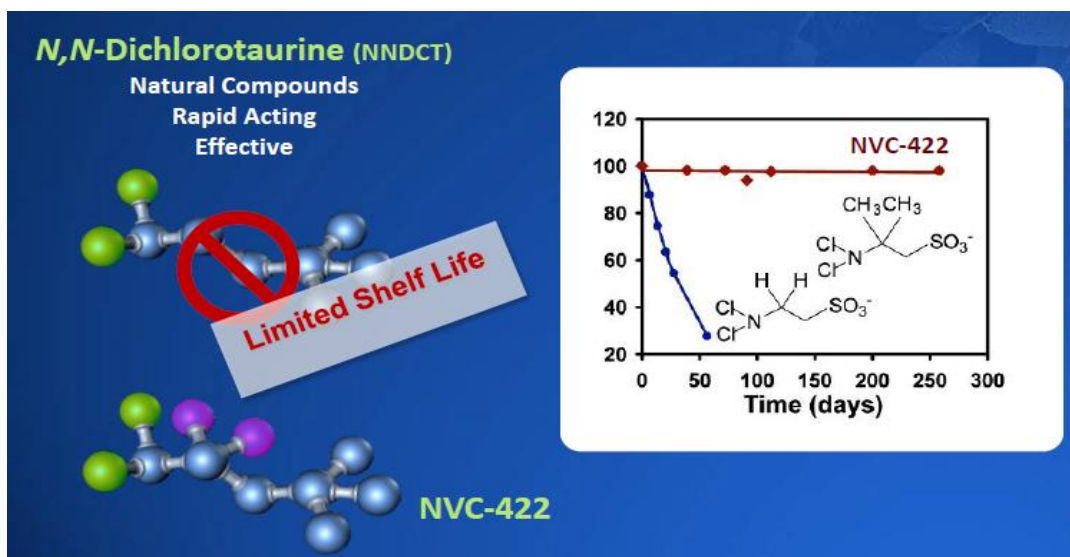
| | Therapeutic Area | Form | Pre-clinical | Phase I | Phase II | Phase III | Approved/cleared |
|-------------------------------|--------------------------------|---------------------|--|---------|----------|-----------|------------------|
| Aganocides® (NVC-422) | Ophthalmology | Eye Drops | Enrolling Global Phase 2b* | | | | |
| | Dermatology GALDERMA | Topical Gel | Enrolling Global Phase 2b* | | | | |
| | Urology | Irrigation Solution | Enrolling Ph 2, Part 2 | | | | |
| NeutroPhase® (NVC-101) | Advanced Wound Care | Pure HOCl Solution | Partnered in China and SE Asia; Seeking Partners Worldwide | | | | |

Source: NovaBay Corporate Presentation

AGANOCIDE IS A NOVEL ANTI-INFECTIVE PLATFORM TECHNOLOGY

NovaBay's technology platform is referred to as Aganocide. Aganocides are novel, broad-spectrum, fast-acting, synthetic anti-infectives designed to mimic the body's defense against infection. In the human immune system, a key line of defense is provided by neutrophils (a type of white blood cell) and macrophages that have to ability to clear infections by generating reactive oxygen metabolites that destroy bacterium or other pathogen microorganisms. These super oxide radicals are catalyzed by an enzyme within the neutrophils to form hypochlorous acid (HOCl). HOCl is then used by neutrophils to generate large quantities of longer-lived oxidants, such as dichloramines of taurine (N,N-dichlorotaurine). These oxidants are powerful antimicrobials and play key roles within the defense system as well as modulating the cytokines and growth factors in the host body. However, these molecules typically have a relatively short life as they are created "on demand" to accomplish a specific task. Using this as a starting point, NovaBay has slightly changed the chemical structure of this molecule to create NVC-422 (N,N-dichloro-2,2-dimethyltaurine). The result is a more stable form of the starting compound, which retains its broad-spectrum antimicrobial activity. Importantly, like the dichloramines of taurine produced in the body, NVC-422 has been designed to have reduced likelihood that bacteria or viruses will be able to develop resistance to it. This could be a critical differentiating advantage in introducing a number of new anti-infectives into a market that is increasingly concerned about the rising prevalence of antibiotic resistance. NovaBay's Neutrophase is a second Aganocide product, which is a stable form of HOCl.

Exhibit 3: NVC-422 Is a Stable Form of N,N-Dichlorotaurine



Source: NovaBay Corporate Presentation

NovaBay is currently developing three different formulations of NVC-422 for three distinct disease indications. For the treatment of viral conjunctivitis, NVC-422 is formulated as an eye drop that can be easily administered by the patient several times per day. For the treatment of impetigo, NVC-422 is formulated as a dermal gel, which is also easily administered by the patient. For the treatment of urinary catheter blockage and encrustation, NVC-422 is formulated as a liquid instillate irrigation solution.

LEAD PROGRAM FOR NVC-422 TO TREAT VIRAL CONJUNCTIVITIS

The most significant opportunity for NovaBay is the potential to use NVC-422 to treat patients with viral conjunctivitis. Conjunctivitis ("Pinkeye") is a common eye inflammation that can be caused by bacteria or viruses. The conjunctiva is the thin clear tissue that lies over the white part of the eye and lines the inside of the eyelid. Conjunctivitis can be caused by bacteria or viruses and can often spread easily from one eye to the other and from person to person. Although there are a number of medications available to treat bacterial causes of the disease, there is currently no FDA approved treatment for conjunctivitis that is caused by adenoviruses. Conjunctivitis is a fairly common condition that usually clears on its own and normally causes no long-term eye or vision damage. However, a more severe form of the disease, Epidemic keratoconjunctivitis (EKC), affects both the conjunctiva and the cornea and can cause serious and lingering harmful effects to one's vision. EKC infections are commonly associated with adenoviruses serotypes 8, 19, 37 and 54. In aggressive cases of EKC, corneal scarring can occur due to deposition of subepithelial infiltrates (SEIs). The formation of these corneal opacities can result in deteriorating vision that may remain for weeks and months.

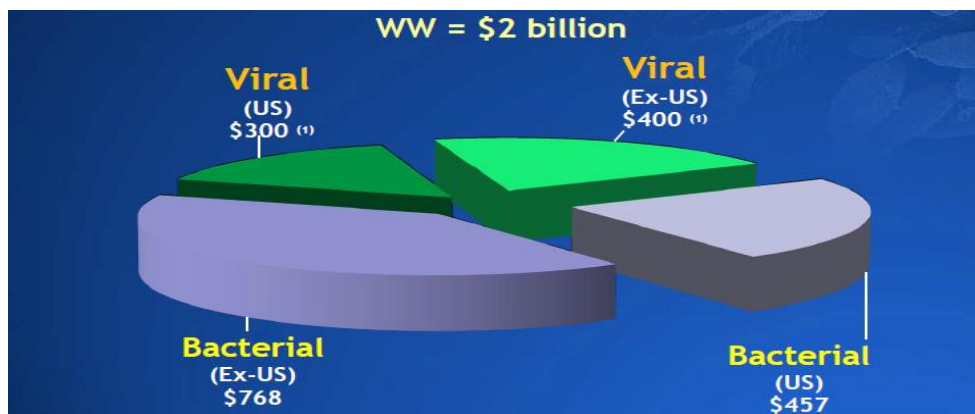
Development of this application for NVC-422 has not been an easy process for NovaBay. The Company had previously entered into a collaboration and license agreement with Alcon back in 2006, under which Alcon had the exclusive rights to develop, manufacture and commercialize products incorporating the Aganocide compounds for applications in connection with the eye, ear and sinus, and for use in contact lens care. Alcon subsequently conducted a Phase 2a clinical trial of NVC-422 in the U.S. for the treatment of viral conjunctivitis. This Phase 2 trial was a multi-center, randomized, double-blind, placebo-controlled, study conducted in the U.S. Patients were randomized 1:1 for daily treatment with NVC-422 ophthalmic solution or a placebo control, dosed 1 drop per eye 8 times a day for 10 days. However, there were a number of problems with the study. It was supposed to

evaluate 220 patients who were confirmed to have adenoviral conjunctivitis by laboratory tests. However patients could be enrolled into the study based solely on the treating physician's in office diagnosis. This proved to be woefully inadequate as out of a total of 452 patients enrolled, only 81 patients (18%) actually had an adenoviral infection. In May 2011, The Company announced that the predetermined primary endpoint of the study, sustained microbiological success (for eradication of adenoviruses on day 5 or 7 that remained eradicated at all subsequent visits) of 20% greater than placebo, was not met. However, a retrospective analysis of the 38% of patients (31/81) infected with adenovirus serotypes (types 8, 19 and 37) commonly associated with EKC suggested that NVC-422 was active against these adenoviral serotypes, and demonstrated clinical resolution of signs and symptoms associated with EKC including reduction in severity and faster resolution of SEIs and blurred vision. It is believed that NVC-422 should be effective against these serotypes because their site of replication on the tear duct of the cornea is an easily accessible surface, thus generating a hypothesis for further clinical evaluation. In June 2011, Alcon (which had recently been acquired by Novartis) ended its collaboration and license agreement with NovaBay, after having spent \$65 MM on the program, and returned its rights to all previously licensed areas in ophthalmic, auricular, and sinus applications, and paid a termination fee of approximately \$3 MM to NovaBay.

NovaBay is now conducting a Phase 2b study evaluating the use of NVC-422 for the treatment of adenoviral conjunctivitis. BAYnovation is a randomized, doubled-blind, placebo-controlled, clinical study that will enroll patients from clinical sites in the U.S., India, and Brazil. Unlike the prior Phase 2a study, only patients with confirmed adenoviral conjunctivitis (based on a rapid point of care test) will be enrolled into this study. The trial will enroll patients until there are at least 100 patients in each arm who have EKC virus serotypes. The study was designed based on input from the FDA, received at an end of Phase 2a meeting. The primary endpoint is a difference in sustained clinical cure measured at day 18 of at least 15%. Key secondary endpoints include efficacy in treating SEI's and blurred vision symptoms.

The BAYnovation study commenced enrollment in the U.S. in May 2012, and subsequently began to enroll patients from India at the beginning of this year, and will shortly begin enrollment of patients from Brazil. Due to the prevalence of epidemics associated with the EKC serotypes, it is expected that the majority of the patients enrolled in this study will come from outside of the U.S. The Company anticipates that the study will be completed in Q3 of this year, which should lead to a release of topline data in Q4 of this year. Should the results from the BAYnovation study be positive, the Company will need to conduct at least 1, and possibly 2 additional Phase 3 studies in order to secure FDA approval for this indication for NVC-422.

Exhibit 4: Estimated Worldwide Conjunctivitis Market (Bacterial and Viral)



Source: NovaBay Corporate Presentation

The Company estimates a potential worldwide market for conjunctivitis of approximately \$2 B, of which about \$700 MM would represent antiviral treatments. While there are approved antibacterial treatments for the disease, there currently is no FDA

approved antiviral treatment. NovaBay's strategy is to first obtain FDA approval of NVC-422 as an antiviral treatment for conjunctivitis. Ideally, they would also be able to include claims on their label regarding efficacy for treating SEI's and blurred vision. In actual medical practice, the reality is that most patients only seek medical care for conjunctivitis due to symptoms of blurred vision that have become a concern. Further, the attending physician generally doesn't know if the cause of the conjunctivitis symptoms are due to a viral or bacterial infection. Hence, an antibiotic prescription will have no effect on the condition if it is viral based. A potential advantage of NVC-422 is its broad spectrum of activity against viruses and bacteria. Therefore, we believe that it is feasible that an approved NVC-422 product for this application could see rapid market adoption and meaningful off-label use.

The NVC-422 adenoviral conjunctivitis opportunity is currently unpartnered. We believe that this situation will likely change, should the results of the BAYnovation study be positive. We currently don't envision the Company marketing this product by themselves.

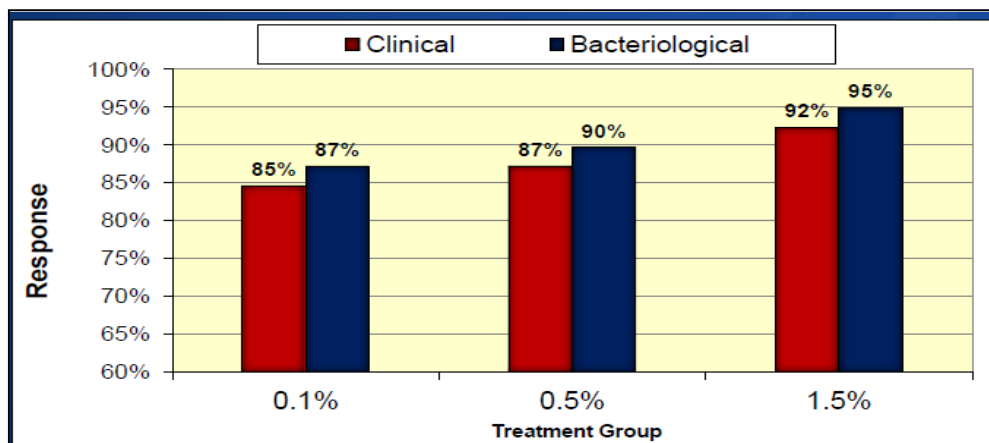
NVC-422 TO TREAT IMPETIGO IS A SECOND OPPORTUNITY

NovaBay is focused on developing dermatology applications for NVC-422 based products as a first-line treatment for a range of topical infections. Its initial dermatology application is a gel formulation of NVC-422 to treat impetigo.

Impetigo is a highly contagious superficial bacterial infection of the skin that affects mostly children. Most cases of impetigo are caused by *Staphylococcus aureus*, *Streptococcus pyogenes*, or a mixture of both organisms. Impetigo can currently be treated with a number of antibiotic ointments such as Bactroban (mupirocin), Altabax (retapamulin), and Fucidin (fucidic acid). The problem with older antibiotics is the ability of bacteria to develop resistance to them. In particular, Methicillin-resistant *S. aureus* (MRSA) is being observed with increasing frequency in this population.

Proof of concept for this application has been established in a Phase 2a clinical study. This randomized, sequential group, double-blind study was designed to evaluate the safety and efficacy of three different strengths of NVC-422 in the treatment of impetigo. A total of 129 children in the age range 2-12 presenting with impetigo were randomized for treatment with NVC-422 topical gel three times daily for 7 days. Efficacy, compared to baseline, for the three concentrations of drug demonstrated clinical and bacteriological response rates that ranged from 84% to 95% at end of treatment and at follow-up. Further, there was no recurrence of infection, and notably, response rates for MRSA infections were 100% (10/10) across all treatment groups.

Exhibit 5: Phase 2a Impetigo Study - Clinical and Bacterial Response

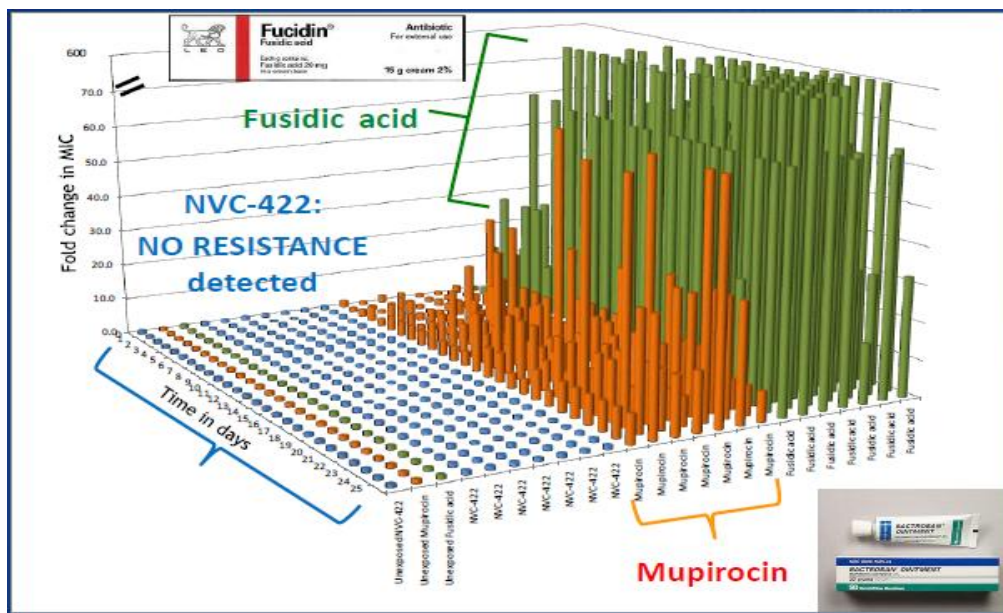


Source: NovaBay Corporate Presentation

In March 2009, NovaBay entered into a collaboration and license agreement with Galderma S.A. (which was subsequently amended in December 2010) to develop and commercialize its Aganocide compounds, which covers acne, impetigo, and potentially other major dermatological conditions.

We believe that the collaboration with Galderma creates a number of potential benefits for the Company. The primary benefit is that it represents a source of non-dilutive R&D funding. Galderma is responsible for the development costs of Impetigo. This will offset the entire cost for NovaBay to commercialize this product. Future potential milestone payments include \$3 MM for successful completion of the Phase 2b clinical study, \$2 MM for initiating a Phase 3 study, \$2 MM for filing the NDA, and \$5 MM for obtaining FDA approval. Second, Galderma is a widely recognized speciality pharmaceutical company, and their investment in NVC-422 provides external validation of the technology. Galderma operates globally, has a specific focus on dermatology, and currently generate over \$1 B in annual revenue. Although Galderma may view the application of NVC-422 for the treatment of impetigo as an attractive market opportunity, we believe they have much broader ambitions for the NVC-422. We believe that they have particular interest in the potential for NVC-422 formulations to have reduced likelihood that bacteria or viruses will be able to develop resistance to them. This could be a critical differentiating advantage in launching a number of new anti-infectives, into a market that is increasingly concerned about the rising prevalence of antibiotic resistance.

Exhibit 6: Development of Bacterial Resistance of MRSA to NVC-422



Source: NovaBay Corporate Presentation

Galderma is currently enrolling patients in a Phase 2b clinical study to evaluate the use of NVC-422 to treat impetigo. This study will evaluate 2 different dosage regimens and is expected to enroll over 300 patients at 24 clinical sites in four countries worldwide. The study was designed based on input from the FDA received at an end of Phase 2a meeting. This study will be a multicenter, randomized, placebo-controlled, parallel, group, double-blind study. Eligible subjects with a clinical diagnosis of impetigo will be randomized to one of four treatment groups: NVC-422 or placebo applied twice a day, or NVC-422 or placebo applied three times per day, for 7 days. The primary endpoint of the study will be clinical success, as measured by the Skin Infection Rating Scale (SIRS) Score, at day 15. Results from this study should be available in mid-2013.

Should the results from this Phase 2b study be positive, Galderma will need to conduct at least 1, and possibly 2 additional Phase 3 studies in order to secure FDA approval for this indication for NVC-422.

The market opportunity for impetigo is attractive. Impetigo is a common disease, and there are an estimated 1.4 mm prescriptions written to treat impetigo in the U.S. annually, and perhaps 10x that amount worldwide. Galderma has estimated that the use of NVC-422 to treat impetigo could be a \$400 MM worldwide sales opportunity. Under the terms of the collaboration agreement, NovaBay will receive an escalating royalty on sales by Galderma, that starts at 10% and increases by 5% for each incremental increase of \$75 MM, to a cap of 30% on sales above \$300 MM.

NVC-422 UROLOGY APPLICATION

The use of NVC-422 as an irrigation solution, with the goal of reducing the incidence of urinary catheter blockage and encrustation (UCBE) and the associated urinary tract infections (UTIs), represents a third opportunity for NovaBay.

Indwelling Foley bladder catheters are a commonly deployed medical device which provides a convenient way to manage the release of urine from the bladder. Unfortunately the presence of the catheter also makes the urinary tract particularly vulnerable to infection. The skin around the insertion site of the catheter is populated by large numbers of bacteria. The catheter provides a bridge for these micro-organisms to migrate into the bladder. The normal cycle of bladder filling and emptying usually ensures that any bacteria managing to gain access to the bladder are flushed out on urination. This does not occur in the catheterized patient. Further, a build-up of crystalline salts of calcium and magnesium in the bladder and lumen of the catheter can occur over time, caused by an abundance of gram negative bacteria that secrete urease. The chances of getting an infection or blockage increase with the length of time the catheter is in place. Severe UTIs can be life-threatening. The current standard of care for treating UCBE requires catheter irrigation three times daily with saline solution, and frequent catheter changes are also required. It is estimated that over 335,000 permanently catheterized U.S. patients are susceptible to UCBE and approximately 100,000 of these chronically suffer from this condition. NovaBay believes that using NVC-422 as an irrigation solution has the potential to reduce the occurrence of UCBE, improve continence, reduce the number of catheter changes required, potentially lower the incidence of UTIs, and also improve the quality of life for these patients.

Proof of concept for this application was demonstrated in Part A of a Phase 2 clinical study. The goal was to demonstrate that NVC-422 could be an effective alternative treatment to saline when used only a couple of times a week. Part A of the Phase 2 study evaluated 20 patients with chronic indwelling transurethral or suprapubic urinary catheters, enrolled in a double-blinded, placebo-controlled crossover design study. The results showed that in evaluable patients, catheter irrigation with NVC-422 was able to prevent UCBE and maintain catheter patency.

The Company is now enrolling patients in Part B of this Phase 2 study, which will utilize a more potent formulation of NVC-422. This study will enroll an additional 20 patients, including male and female spinal cord injury (SCI) and other neurogenic bladder patients, with chronic indwelling transurethral urinary catheters who have a recent repeated history of urinary catheter encrustation and/or blockage. In this crossover design, patients will receive a treatment regimen with NVC-422 sterile irrigation solution and one treatment regimen with sterile saline irrigation solution. Each treatment regimen will consist of a total of 8 treatments, with a washout period between treatment regimens. The primary endpoint of the study is catheter patency at 26 days, and the percent of open area within the catheter that is not encrusted. Results from this study are expected in Q3 of 2013.

NEUTROPHASE FOR NON-HEALING WOUNDS

NovaBay's NeutroPhase product is a patented formulation of pure hypochlorous acid (HOCl). In the human immune system, HOCl is known to be the major strong oxidant produced by neutrophils and is a potent microbicidal agent within these cells. In developing NeutroPhase, NovaBay has overcome the challenge of maintaining storage stability of a pure form of HOCl. In numerous laboratory and clinical studies, NeutroPhase has proven to be able to disrupt bacterial biofilm and kill common wound pathogens in solution including *P. aeruginosa*, *E. coli*, *S. aureus*, *C. albicans* and *A. nigerin*, while leaving healthy living human cells unharmed.

Furthermore, the characteristics and mechanisms of action of NeutroPhase also make it highly unlikely that resistant strains of bacteria could develop over time. This product has obtained FDA 510(k) clearance for use as a wound cleanser. The Company is targeting the product for patients with chronic non-healing wounds, such as pressure, venous stasis and diabetic ulcers. The Company is currently generating modest revenue from sales of the product outside of the U.S., which are sold through distributors. The product is manufactured for NovaBay by a third party and generates a gross margin of approximately 50% at current volume and pricing. While we believe that the end user market for this product is likely less than \$50 MM, it does represent a finished product that is poised to generate a positive contribution margin for the Company.

NovaBay has begun securing additional commercial partnerships for NeutroPhase. Last year, NovaBay entered into a strategic marketing agreement with Pioneer Pharma Co., Ltd., a Shanghai-based company that markets high-end pharmaceutical products in Asia. Pioneer will be responsible for selling the product in China and 11 other countries in southeast Asia. SFDA approval of the product in China is expected to be obtained by mid-2013, which will trigger a \$625 K milestone payment. Pioneer made a \$2.5 MM equity investment in NovaBay and holds warrants to purchase 2 MM more shares at \$1.50, that expire at the end of 2013.

NovaBay is seeking to enter into additional marketing agreements for NeutroPhase in select geographic markets around the world including the U.S.

INVESTMENT RISKS

Investors should be aware of several events or factors that could adversely impact the Company's financial performance and valuation. These risks include:

There is only limited data on the use of Aganocide compounds in humans and they may never become marketable products that are commercially successful.

The scientific evidence to support the feasibility of using Aganocide compounds in different disease applications is limited at this time. Much of the data that the Company has generated is from in-vitro, in-vivo animal studies, Phase 1 human safety studies, or small-scale Phase 2a or other exploratory clinical studies. The Company will need conduct additional human clinical trials to demonstrate how well its compounds work in larger patient populations, for the treatment of viral conjunctivitis, impetigo, and urinary catheter blockage and encrustation, in order to obtain approval from the FDA and other regulatory agencies. As these compounds advance in larger clinical trials, they may not prove to be a safe and effective treatments for the diseases for which they are being evaluated.

Heavily dependent on the successful development and commercialization of its Aganocide compounds

NovaBay is heavily dependent upon the successful development of new indications for use for its anti-infective Aganocide compounds. Any adverse development relating to these compounds, such as failure to achieve the primary endpoint in its Phase 2 and Phase 3 clinical studies for viral conjunctivitis, impetigo, and urinary catheter blockage and encrustation applications, could substantially depress the stock price and prevent the company from raising additional capital. In the viral conjunctivitis and impetigo applications, there is risk that the FDA could require the Company to conduct two additional Phase 3 studies, beyond the current Phase 2b studies, in order to gain approval. Further, failure to obtain FDA and other regulatory approvals in a timely manner based on the results from Phase 3 studies, or if approved, failure to meet current expectations regarding the commercial success of Aganocide compounds in the treatment of these indications, due to a lack of widespread reimbursement, or for other reasons, could also have a negative effect on the stock.

The Company May Need to Raise Debt or Equity Funds in the Future

NovaBay has experienced significant operating losses since its inception. As of December 31, 2012, we estimate that the Company had an accumulated deficit of \$41 MM. We expect the Company to generate only modest product revenue from its NeutroPhase product over the next several years. Hence, we expect that the Company will continue to incur annual net operating losses over the next several years and will likely need additional funds to support the clinical evaluation and commercialization of its NVC-422 products. The Company had approximately \$15 MM in cash at the end of 2012 after raising approximately \$6.3 MM via the

issuance of common shares in December 2012. It has no outstanding debt. We believe that additional cash will be required to fund additional planned studies for its viral conjunctivitis and urology indications. Any additional equity financing may be dilutive to stockholders, and additional debt financing, if available, may involve restrictive covenants. External financing, depending on the financial environment, could be particularly difficult, and the source, timing and availability of any future fundraising will depend principally upon market conditions, and, more specifically, on the Company's progress in its clinical development programs. Funding may not be available when needed at all or on acceptable terms.

The Company may not succeed in establishing and maintaining collaborative relationships

A key part of NovaBay's business strategy is to establish collaborative relationships to commercialize and fund development of its product candidates. Its partnership with Galderma is funding the development of its Aganocide compound for impetigo. The Company's current and future success depends in part on its ability to enter into additional collaboration arrangements and to maintain the collaboration arrangement it currently has with Galderma.

The Company Faces Significant Competition

The market for the Company's product candidates is characterized by intense competition and continued technological advances. The Company will face competition from fully integrated pharmaceutical and medical device companies that either alone or together with their collaborative partners, have substantially greater capital resources, larger research and development staffs and facilities, and greater financial resources. Other public companies that offer competing products include: GlaxoSmithKline, Oculus Innovative Sciences, and CSL Ltd. Given the magnitude of the potential opportunity for new anti-infectives, competition in this area could intensify in the coming years.

The above factors represent only some of the risks associated with investing in NovaBay. For a complete list, investors should refer to the Company's most recent 10-K and 10-Q filings.

MANAGEMENT

Chairman and CEO – Ramin Najafi Ph.D.

Dr. Najafi is the founder and Chairman of NovaBay. He has served as President since July 2002, and as Chief Executive Officer since November 2004. Previously, Dr. Najafi served in various management positions within NovaBay including as Chief Scientific Officer. Prior to founding NovaBay, Dr. Najafi was the President and CEO of California Pacific Labs, Inc., a chemical laboratory safety devices company. He has also held scientific roles at Rhone Poulenc Rorer (now Sanofi-Aventis), Applied Biosystems, a division of PerkinElmer, Inc., and Aldrich Chemical. Dr. Najafi received a B.S. and M.S. degree in Chemistry from the University of San Francisco and a Ph.D. in Organic Chemistry from the University of California at Davis.

Chief Alliance Officer - Behzad Khosrovi Ph.D.

Dr. Behzad Khosrovi has directed research and development for NovaBay Pharmaceuticals since he joined the company in 2003. He currently serves as NovaBay's Chief Alliance Officer and Senior Vice President of Product Development. Dr. Khosrovi's accomplishments managing new drug and biologic research span more than 30 years. He has in-depth experience in the chemistry, manufacturing, preclinical, clinical and regulatory requirements for both biologics and drugs, as well as a long history of product development achievements. Prior to joining NovaBay, Dr. Khosrovi was vice president of development for Neurobiological Technologies Inc. He also served in various roles of escalating responsibility at Cetus Corp., where he was ultimately vice president of development. He has acted as a consultant to several biotechnology companies, advising on manufacturing, quality control and product development. Dr. Khosrovi received his M.A. degree in natural sciences from the University of Cambridge and earned his Ph.D. in applied microbiology & biochemical engineering from the University of Manchester.

Chief Financial Officer - Thomas Paulson

Mr. Paulson has served as NovaBay's Chief Financial Officer since January 2008. Prior to joining NovaBay, Mr. Paulson was a partner at Tatum LLC, an executive services and consulting firm in the United States. Mr. Paulson was also President and CEO of The Paulson Group, a management consulting company whose clients included high-technology and biotechnology companies. He also held senior management positions at Avigen Inc., Neurogen Corporation, Ciba-Corning Diagnostics, Quidel Corporation and Abbott Laboratories. Mr. Paulson received a B.A. from Loyola University and an M.B.A from the University of Chicago.

Source for Management Biographies - NovaBay 10-K filing

FINANCIALS

NovaBay currently generates only modest revenue from sales of its first product, NeutroPhase. Its more significant products, which are different formulations of NVC-422, are still being evaluated in Phase 2 clinical studies. As such, we expect the Company to be in a net loss position for several more years. We would not expect the Company to commercialize sales of any NVC-422 products in the U.S until 2016 at the earliest. We believe that the Company will need a significant amount of additional cash to fund its research and product development programs, regulatory processes, clinical testing, and potential sales and marketing infrastructure and programs. The Company had approximately \$15 MM in cash at the end of 2012, which includes approximately \$6.3 MM raised in the equity offering in December. The Company expects that it will cost about \$7 MM to conduct another Phase 3 study in adenoviral conjunctivitis.

For 2013, we are projecting a net loss of (\$10.4) MM or GAAP EPS of (\$0.28). We assume that the Company will receive a \$3 MM milestone payment from Galderma, for successfully completing the Phase 2b/3 clinical study, and will receive a \$0.6 MM milestone payment from Pioneer for obtaining SFDA approval of NeutroPhase in China. We further assume that revenue from product sales of NeutroPhase are modest, at \$1 MM. We expect R&D expense to increase slightly to \$11 MM to support multiple clinical trials. Finally, we assume that Pioneer decides to exercise its warrants for \$3 MM.

For 2014, we are projecting a net loss of (\$13.3) MM or GAAP EPS of (\$0.27). We assume that revenue from product sales of NeutroPhase remain modest at \$2 MM. We expect R&D expense to increase to \$12 MM to support multiple clinical trials. We assume that the Company will receive a \$2 MM milestone payment from Galderma for initiating a Phase 3 clinical study. Finally, we assume that the Company raises \$15 MM thru an equity offering.

VALUATION

Over the past 12 months, the stock price of NBY has decreased 7% to the current \$1.23. While NovaBay generates some modest revenue today, the larger opportunities for NovaBay are still in development, and thus accurate valuation is more complex and requires a number of forward assumptions, which at best are inexact. We have used an NPV analysis to establish our 12-month price target of \$2.25. Our analysis considers future estimated revenue from NVC-422 product sales out to 2024. We apply a further haircut adjustment of 60% to these future cash flows to capture the uncertainty associated with the fact that the applications for viral conjunctivitis, impetigo, and urinary catheter blockage and encrustation must still be proven in Phase 2 and Phase 3 clinical studies. We use a WACC of 15% as our discount rate. Finally we assume a fully diluted share count of 75 MM. As we stated above, we believe that NovaBay should have a number of potential catalysts that could drive the value of the stock higher over the next 12 months.



OTHER COMPANIES MENTIONED IN THE REPORT

GlaxoSmithKline (GSK - \$44.29- Not Rated)

Oculus (OCLS - \$0.59 - Not Rated)

CSL - (CSL.AX - \$60.00 - Not Rated)

Galderma - (Privately Held)

Pioneer - (Privately Held)

Novartis - (NVS, \$68.15, Nor Rated)

FINANCIAL MODEL

| NovaBay Pharmaceuticals Inc. Income Statement (in millions) | FY 2011 | FY 2012 | | | | | FY 2013 | | | | | FY 2014 | | | | |
|--|---------|---------|--------|-------|--------|--------|---------|--------|-------|--------|--------|---------|--------|--------|--------|--------|
| | YE | Q1 | Q2 | Q3 | Q4E | YE | Q1E | Q2E | Q3E | Q4E | YE | Q1E | Q2E | Q3E | Q4E | YE |
| Total Revenue | 11.0 | 1.3 | 0.9 | 3.6 | 1.2 | 7.0 | 0.9 | 0.7 | 4.3 | 1.1 | 6.9 | 2.7 | 1.0 | 1.1 | 1.2 | 6.0 |
| Cost of revenue | - | - | - | - | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 1.2 |
| Gross profit | 11.0 | 1.3 | 0.9 | 3.6 | 1.2 | 7.0 | 0.9 | 0.6 | 4.2 | 0.9 | 6.6 | 2.5 | 0.7 | 0.8 | 0.8 | 4.8 |
| Research and development | 9.9 | 2.3 | 2.4 | 2.5 | 2.5 | 9.7 | 2.7 | 2.8 | 2.7 | 2.8 | 11.0 | 3.0 | 3.0 | 3.0 | 3.0 | 12.0 |
| Selling and Marketing | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General and Administrative | 5.4 | 1.5 | 1.4 | 1.2 | 1.4 | 5.5 | 1.6 | 1.5 | 1.4 | 1.5 | 6.0 | 1.6 | 1.5 | 1.4 | 1.5 | 6.1 |
| Operating expenses | 15.3 | 3.8 | 3.7 | 3.7 | 3.9 | 15.2 | 4.3 | 4.3 | 4.1 | 4.3 | 17.0 | 4.6 | 4.5 | 4.4 | 4.5 | 18.1 |
| Operating income | (4.3) | (2.5) | (2.9) | (0.1) | (2.7) | (8.2) | (3.4) | (3.7) | 0.1 | (3.4) | (10.4) | (2.1) | (3.8) | (3.7) | (3.7) | (13.3) |
| Non-cash gain on decrease in value of warrants | - | (0.0) | 0.6 | 0.2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Other income (expense), | (0.0) | (0.0) | 0.0 | (0.0) | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| Income (loss) before taxes & extraordinary items | (5.1) | (2.5) | (2.2) | 0.1 | (2.7) | (7.4) | (3.4) | (3.7) | 0.1 | (3.4) | (10.4) | (2.1) | (3.8) | (3.7) | (3.7) | (13.3) |
| Income tax expense (benefit) | 0.0 | 0.0 | 0.0 | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| Effective tax rate | 1.2% | -0.2% | -0.3% | 7.0% | 0.0% | 1.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Net Income (Loss) | (5.0) | (2.5) | (2.2) | 0.1 | (2.7) | (7.4) | (3.4) | (3.7) | 0.1 | (3.4) | (10.4) | (2.1) | (3.8) | (3.7) | (3.7) | (13.3) |
| Basic earnings (losses) per share: | | | | | | | | | | | | | | | | |
| Net earnings (losses) | (0.19) | (0.09) | (0.08) | 0.00 | (0.09) | (0.25) | (0.09) | (0.10) | 0.00 | (0.09) | (0.28) | (0.05) | (0.08) | (0.08) | (0.08) | (0.29) |
| Diluted earnings (losses) per share: | | | | | | | | | | | | | | | | |
| Net earnings (losses) | (0.20) | (0.09) | (0.08) | 0.00 | (0.09) | (0.25) | (0.09) | (0.10) | 0.00 | (0.09) | (0.28) | (0.05) | (0.08) | (0.08) | (0.08) | (0.29) |
| Weighted average shares outstanding: | | | | | | | | | | | | | | | | |
| Basic | 25.8 | 28.6 | 28.7 | 28.9 | 31.0 | 29.3 | 37.0 | 37.0 | 37.0 | 38.0 | 37.3 | 46.5 | 46.5 | 46.5 | 46.5 | 46.5 |
| Diluted | 33.7 | 39.5 | 39.4 | 38.6 | 40.8 | 39.6 | 51.2 | 51.2 | 51.2 | 52.2 | 51.5 | 60.7 | 60.7 | 60.7 | 60.7 | 60.7 |
| EBITDAS | (2.8) | (2.1) | (2.4) | 0.3 | (2.7) | (6.8) | (3.3) | (3.6) | 0.2 | (3.3) | (10.1) | (2.0) | (3.7) | (3.6) | (3.6) | (13.0) |
| Margin analysis (percentage of sales) | | | | | | | | | | | | | | | | |
| Cost of goods sold | "NA" | "NA" | "NA" | "NA" | "NA" | 50% | 50% | 50% | 50% | 50% | 50% | 50% | 50% | 50% | 50% | 50% |
| Gross profit on Product Sales | "NA" | "NA" | "NA" | "NA" | "NA" | 46643% | 9110% | 540% | 1931% | 276% | 998% | 592% | 135% | 121% | 111% | 207% |
| Research and development | 0% | "NA" | "NA" | "NA" | "NA" | 0% | 27000% | 2489% | 1241% | 868% | 0% | 702% | 563% | 471% | 404% | 0% |
| Selling and Marketing | 49% | "NA" | "NA" | "NA" | "NA" | 79% | 0% | 0% | 0% | 0% | 86% | 0% | 0% | 0% | 0% | 102% |
| General and Administrative | 49% | "NA" | "NA" | "NA" | "NA" | 79% | 16000% | 1333% | 644% | 465% | 86% | 382% | 287% | 224% | 206% | 102% |
| Operating expenses | 139% | "NA" | "NA" | "NA" | "NA" | 217% | 43000% | 3822% | 1885% | 1333% | 245% | 1084% | 851% | 695% | 610% | 302% |
| Operating income | 139% | "NA" | "NA" | "NA" | "NA" | 217% | -33890% | -3282% | 46% | -1057% | 245% | -492% | -716% | -574% | -499% | 302% |
| Net Income (Loss) | 0% | "NA" | "NA" | "NA" | "NA" | 0% | -33890% | -3282% | 46% | -1057% | 0% | -492% | -716% | -574% | -499% | 0% |

| <i>NovaBay Pharmaceuticals Inc.</i> | 2011 | 2012 | 2013 | 2014 |
|---|-----------|-----------|----------|-----------|
| Balance Sheet (in millions) | YE | YE | YE | YE |
| ASSETS | | | | |
| Current Assets: | | | | |
| Cash and cash equivalents | 8 | 12 | 7 | 9 |
| Short-term investments | 6 | 3 | - | - |
| Accounts Receivable | 0 | 0 | 0 | 0 |
| Inventories | - | - | - | - |
| Other current assets | 0 | 1 | 1 | 1 |
| <i>Total current assets</i> | 15 | 16 | 7 | 9 |
| Property and equipment-net | 1 | 1 | 1 | 1 |
| Other assets | 0 | 0 | 0 | 0 |
| Intangibles, net | - | - | - | - |
| Goodwill | - | - | - | - |
| | - | - | - | - |
| Total Assets | 16 | 17 | 9 | 11 |
| | - | - | - | - |
| LIABILITIES & STOCKHOLDERS' EQUITY | | | | |
| Current Liabilities: | | | | |
| Accounts payable | 0 | 1 | 1 | 1 |
| Accrued liabilities | 1 | 1 | 1 | 1 |
| Capital lease obligation | - | - | - | - |
| Equipment loan | - | - | - | - |
| Deferred revenue | 1 | 1 | - | - |
| <i>Total current liabilities</i> | 3 | 3 | 2 | 2 |
| Long Term Liabilities: | | | | |
| Deferred Tax | - | - | - | - |
| Deferred Rent | - | - | - | - |
| Warrant liability | - | - | - | - |
| Capital lease obligation - non-current | - | - | - | - |
| Equipment loan - non-current | - | - | - | - |
| Deferred revenue - non-current | 1 | 0 | - | - |
| Total Liabilities | 7 | 6 | 2 | 2 |
| | - | - | - | - |
| STOCKHOLDERS' EQUITY | | | | |
| Preferred stock | - | - | - | - |
| Common stock | 0 | 0 | 0 | 0 |
| Additional paid-in capital | 42 | 52 | 57 | 72 |
| Accumulated other comprehensive income (loss) | (0) | (0) | (0) | (0) |
| Accumulated deficit during development stage | (33) | (41) | (51) | (64) |
| | - | - | - | - |
| Total Stockholders' Equity | 9 | 11 | 6 | 8 |
| | - | - | - | - |
| Total Liabilities & Stockholders' Equity | 16 | 17 | 9 | 11 |

| <i>NovaBay Pharmaceuticals Inc.</i> | 2010 | 2011 | 2012 |
|--|-----------|-----------|-----------|
| Cash Flow Statement (in millions) | YE | YE | YE |
| OPERATING CASH FLOWS | | | |
| Net loss | -4 | -5 | -7 |
| Adjustments to reconcile net loss to net cash used in operating activities: | | | |
| Depreciation and amortization | 0 | 0 | 0 |
| Accretion of discount on short-term investments | | | |
| Net realized loss on sales of short-term investments | | | |
| Loss on disposal of property and equipment | 0 | 0 | 0 |
| Stock-based compensation expense for options and stock issued to employees | | | |
| Stock-based compensation expense for options and stock issued to non-employees | 0 | 0 | 0 |
| Non-cash gain on decrease in fair value of warrants | | | |
| Changes in assets and liabilities: | | | |
| Accounts receivable | 3 | 0 | -1 |
| Inventories | 0 | 0 | 0 |
| Other current assets | 0 | 0 | 0 |
| Other assets | 0 | 0 | 0 |
| Accounts payable and accrued expenses | 0 | 0 | 1 |
| Deferred revenues | 2 | -1 | -1 |
| Increase in deferred tax | | | |
| Net cash provided by (used in) operating activities | 2 | -3 | -8 |
| INVESTING CASH FLOWS | | | |
| Property and equipment purchases | 0 | 0 | 0 |
| Proceeds from disposal of property and equipment | 0 | 0 | 0 |
| Purchases of short-term investments | -2 | -8 | -3 |
| Proceeds from maturities and sales of short-term investments | 1 | 3 | 6 |
| Net cash provided by (used in) investing activities | -1 | -5 | 2 |
| FINANCING CASH FLOWS | | | |
| Proceeds from issuance of common stock | 0 | 5 | 9 |
| Principal payments on capital lease | 0 | 0 | 0 |
| Proceeds from short-term borrowing | 0 | 0 | 0 |
| Principal payments on short-term borrowing | 0 | 0 | 0 |
| Principal payments on equipment loan | 0 | 0 | 0 |
| Proceeds from exercise of stock warrants | 0 | 0 | 0 |
| Proceeds from exercise of stock options | 0 | 0 | 0 |
| Net cash provided by (used in) financing activities | 0 | 5 | 9 |
| Net increase (decrease) in cash & cash equivalents | 0 | -3 | 3 |
| Cash & cash equivalents, beginning | 11 | 12 | 8 |
| Cash & cash equivalents, end | 11 | 8 | 12 |

ANALYST CERTIFICATION

Each analyst hereby certifies that the views expressed in this report reflect the analyst's personal views about the subject securities or issuers. Each analyst also certifies that no part of the analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. The analyst who prepared this report is compensated based upon the overall profitability of Ascendant Capital Markets, LLC, which may, from time to time, include the provision of investment banking, financial advisory and consulting services. Compensation for research is based on effectiveness in generating new ideas for clients, performance of recommendations, accuracy of earnings estimates, and service to clients.

IMPORTANT DISCLOSURES

This report has been distributed by Ascendant Capital Markets, LLC and is for the sole use of our clients. This report is based on current public information that we consider reliable, but we do not represent it is accurate or complete, and it should not be relied on as such. This report contains information from various sources, including United States government publications, The Wall Street Journal and other periodicals, Yahoo! Finance and other sources, and is for informational purposes only and is not a recommendation to trade in the securities of the companies mentioned within the report. We seek to update our research and recommendations as appropriate, but the large majority of reports are published at irregular intervals as we consider appropriate and, in some cases, as constrained by industry regulations.

We may have a business relationship with companies covered in this report. Ascendant Capital Markets, LLC may make a market in the securities of the subject company. We and our affiliates, officers, directors, and employees will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives (including options and warrants) thereof of covered companies referred to in this report. This report is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Clients should consider whether any information in this report is suitable for their particular circumstances and, if appropriate, seek professional advice, including tax advice. The price and value of the investments referred to in this report may fluctuate. Ascendant Capital Markets, LLC has not received compensation for advisory or investment banking services from the company in the past 12 months.

Following are some general risks that can adversely impact future operational and financial performance and share price valuation: (1) industry fundamentals with respect to legislation, mandates, incentives, customer demand, or product pricing; (2) issues relating to competing companies or products; (3) unforeseen developments with respect to management, financial condition or accounting policies or practices; or (4) external factors that affect the interest rates, currency, the economy or major segments of the economy. Past performance is not a guide to future performance, future returns are not guaranteed, and loss of original capital may occur. Certain transactions, including those involving futures, options, and other derivatives, give rise to substantial risk and are not suitable for all investors. Our report is disseminated primarily electronically, and, in some cases, in printed form. The information contained in this report is not incorporated into the contents of our website and should be read independently thereof. Copyright 2013 Ascendant Capital Markets, LLC. No part of this material may be copied, photocopied or duplicated by any means or redistributed without the prior written consent of Ascendant Capital Markets, LLC.

Risks & Considerations

Risks to attainment of our share price target include failure of product candidates to demonstrate safety and efficacy in clinical trials, failure of product candidates to gain regulatory approval for commercial sale, failure to obtain suitable reimbursement, competition from similar products, and weaker macroeconomic factors.

Ascendant Capital Markets, LLC Rating System

- Strong Buy:** We expect the stock to provide a total return of 30% or more within a 12-month period.
- Buy:** We expect the stock to provide a total return of between 10% and 30% within a 12-month period.
- Neutral:** We expect the stock to provide a total return of between minus 10% and plus 10% within a 12-month period.
- Sell:** We expect the stock to provide a total return of minus 10% or worse within a 12-month period.

Speculative Buy: This rating is reserved for companies we believe have tremendous potential, but whose stocks are illiquid or whose equity market capitalizations are very small, often in the definition of a nano cap (below \$50 million in market cap). In general, for stocks ranked in this category, we expect the stock to provide a total return of 50% or more within a 12-month period. However, because of the illiquid nature of the stock's trading and/or the nano cap nature of the investment, we caution that these investments may not be suitable for all parties.

Total return is defined as price appreciation plus dividend yield.

Ascendant Capital Markets, LLC Distribution of Investment Ratings (as of March 4, 2013)

| Rating | Count | Percent | Investment Banking Services Past 12 months | |
|------------|-------|---------|---|---------|
| | | | Count | Percent |
| Strong Buy | 9 | 26% | 1 | 11% |
| Buy | 19 | 54% | 2 | 11% |
| Neutral | 6 | 17% | 1 | 17% |
| Sell | 1 | 3% | 0 | 0% |
| Total | 35 | 100% | 4 | 11% |

Other Important Disclosures

Our analysts use various valuation methodologies including discounted cash flow, price/earnings (P/E), enterprise value/EBITDAS, and P/E to growth rate, among others. Risks to our price targets include failure to achieve financial results, product risk, regulatory risk, general market conditions, and the risk of a change in economic conditions.

Dissemination of Research

Ascendant Capital Markets, LLC research is distributed electronically via the Thomson Reuters platforms, Bloomberg, Capital IQ and FactSet. Please contact your investment advisor or institutional salesperson for more information.

General Disclaimer

The information and opinions in this report were prepared by Ascendant Capital Markets, LLC. This information is not intended to be used as the primary basis of investment decisions and because of individual client objectives it should not be construed as advice designed to meet the particular investment needs of any investor. This material is for information purposes only and is not an offer or solicitation with respect to the purchase or sale of any security. The reader should assume that Ascendant Capital Markets, LLC may have a conflict of interest and should not rely solely on this report in evaluating whether or not to buy or sell securities of issuers discussed herein. The opinions, estimates, and projections contained in this report are those of Ascendant Capital Markets, LLC as of the date of this report and are subject to change without notice. Ascendant Capital Markets, LLC endeavors to ensure that the contents have been compiled or derived from sources that we believe are reliable and contain information and opinions that are accurate and complete. However, Ascendant Capital Markets, LLC makes no representation or warranty, express or implied, in respect thereof, takes no responsibility for any errors and omissions contained herein, and accepts no liability whatsoever for any loss arising from any use of, or reliance on, this report or its contents. Information may be available to Ascendant Capital Markets, LLC, or its affiliates that is not reflected in this report. This report is not to be construed as an offer or solicitation to buy or sell any security.

Additional Disclosures

Ascendant Capital Markets, LLC is a broker-dealer registered with the United States Securities and Exchange Commission (SEC) and a member of the FINRA and SIPC. Ascendant Capital Markets, LLC is not a Registered Investment Advisor nor is it an investment advisor registered with the Securities and Exchange Commission or with the securities regulators of any state, and at the present time is not eligible to file for federal registration.