

December 13, 2010

**Apricus Biosciences, Inc. (Nasdaq/APRI)**

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**BUY NexMed is next new thing**

*Apricus provides CRO and drug delivery technology services*

**Investment Highlights**

1) Apricus Biosciences (Apricus) has just received its first product marketing approval – for erectile dysfunction treatment **Vitaros**, and many more could follow. Next up for Vitaros is the signing of a marketing partner for Canada, potential partners and filings on a country-by-country basis in Europe, partnerships in other markets (Middle East, Africa, Asia) and perhaps even some progress next year in the US from partner Warner Chilcott. While the ED market is somewhat mature as measured by the big 3 mega products Viagra, Cialis and Levitra, there is still plenty of room in the market for a new product launch, particularly one such as Vitaros which can claim rapid onset and an easier-to-take formulation.

2) With the Company’s experience with Vitaros as a guide, Apricus’ **NexMed drug delivery technology** division has begun to heat up – with recent developments in the use of this technique in the areas of liver cancer, Raynaud’s Syndrome, and post-chemotherapy recovery. However, we believe there is more good news to come in the future for Apricus’ NexMed technology, including further developments in the areas of female sexual dysfunction, onychomycosis (nail fungus), psoriasis, diabetes, pain relief, cancer treatment, and perhaps even some additional areas of medical specialty or even nutraceuticals not yet disclosed.

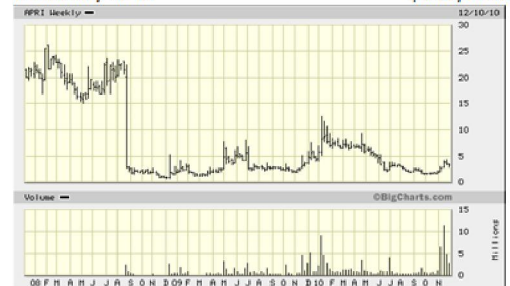
3) Not to be forgotten is Apricus’ recently acquired Clinical Research Organization (CRO) **Bio-Quant**, which in addition to helping develop the NexMed early stage programs, also is a viable and growing service business of its own. As one of the leading San Diego-based CROs as well as a specialist in early stage clinical trials, Bio-Quant can stand on its own when it comes to growth prospects, and we forecast sales growth and increasing contributions to operating income from Bio-Quant over the next several years.

**Current Price \$3.39**

**Price Target \$5.50**

Estimates	F2008A	F2009A	F2010E
Revenue(\$000s)	\$5,957	\$2,974	\$5,610
1Q March		2,467	1,446 A
2Q June		103	1,471 A
3Q September		110	1,194 A
4Q December		295	1,500 E
EPS	(\$0.93)	(\$5.43)	(\$1.53)
1Q March		0.12	(1.25) A
2Q June		(0.25)	(0.47) A
3Q September		(0.20)	(0.20) A
4Q December		(5.10)	(0.12) E
P/E (x)	N/A	N/A	N/A
EBITDA/Share	(\$0.48)	(\$0.50)	(\$0.65)
EV/EBITDA (x)	N/A	N/A	N/A

Stock Data	
52-Week Range	\$1.60-\$12.58
Shares Outstanding (mil.)	18.6
Market Capitalization (mil.)	\$63.1
Enterprise Value (mil.)	\$65.7
Debt to Capital (9/10)	23.0%
Book Value/Share (9/10)	\$0.79
Price/Book	4.3 X
Average Trading Volume (3-month)	505,000
Insider Ownership	11.1%
Institutional Ownership	5.5%
Short interest (Million shares)	1.03
Dividend / Yield	\$0.00/0.0%



Price target and ratings changes over the past 3 years:  
Initiated - December 13, 2010 – Target \$5.50

## Conclusion

Apricus Bio has had a **very busy and productive last twelve months**, first acquiring Bio-Quant late last year and then restructuring and renaming the Company, cleaning up stock listing issues, bolstering the balance sheet, obtaining its first product marketing approval, and advancing several other clinical programs along the way. Still, we believe **that there is more good news to come for Apricus related to new product launches and/or development partnerships**, and that these shares will continue their strong trading volume and upward climb over the next 12-24 months, and thus we are initiating coverage on APRI with a BUY rating and an 18-24 month price target of \$5.50, based on a sum of the parts valuation for Bio-Quant, NexMed, and corporate assets.

## History/Capitalization

Apricus Biosciences began as a Nevada Corporation in 1987 and entered the pharmaceutical industry in 1995. The Company initially focused on its NexACT drug delivery technology, culminating with licensing agreement signings in 2005 with Novartis for a proprietary topical nail solution for the treatment of onychomycosis (nail fungus) and in 2007 with Warner Chilcott for Vitaros (alprostadil-based cream for erectile dysfunction) in the United States. In December 2009, the Company acquired Bio-Quant, Inc., the largest specialty biotechnology Clinical Research Organization (CRO) based in San Diego, California. In September 2010, the Company changed its name to Apricus Biosciences, Inc. and began trading on the Nasdaq market under the symbol "APRI". Apricus has corporate headquarters and laboratories in San Diego, California. The Company has funded its research and development efforts since inception through equity and debt offerings, the most recent of which was completed in October 2010.

## Products and Services

Apricus is comprised of two primary operating business segments:

- 1) **Bio-Quant** – Bio-Quant provides pre-clinical CRO services; and
- 2) **NexMed USA** – NexMed is active in the design and development of pharmaceutical products employing the proprietary NexACT drug delivery technology.

These two operating divisions are described in more detail below.

### Bio-Quant clinical research organization

Bio-Quant performs in vitro and in vivo pharmacology, pharmacokinetic (PK) and toxicology studies to support pre-IND (Investigational New Drug) enabling packages for over 300 clients world-wide. The Company's client base ranges from larger global pharmaceutical firms to midsized and smaller biotechnology companies. Bio-Quant specializes in early stage drug development and discovery; indeed approximately 80% of this division's revenues since inception have been generated from pre-clinical contract services, with the remainder of revenues including sales of diagnostic kits and vivarium housing services. The clinical research organization industry has benefited from several larger trends in recent years, including reduction of costs by large pharmaceutical companies, the re-evaluating of priorities among projects by biotechnology firms, increasing use of outsourcing by large companies, and finally the decline in prescription drug sales and increase in generics and nutraceuticals, opening up additional potential clients for the firm's early stage services. Finally, Bio-Quant's recent affiliation with NexMed has already helped bring in new business centered around the NexACT technology and its sister divisions' pipeline, with more work very possibly to appear in the future as this technology is applied to more and more compounds and more partnerships are signed.

Bio-Quant provides the following services to its clients:

- In Vivo Pharmacology;
- In Vivo Pharmacokinetics (PK);
- In Vivo Toxicology;
- Antibody Production Services;
- In-Vitro Assays;
- Biomarkers; and
- Vivarium Services.

Functionally, Bio-Quant specializes in the medical areas of oncology, inflammation, immunology, and diabetes. Bio-Quant currently operates two lab and housing facilities and employs an experienced scientific staff of 19 professionals. The division moved into its current especially-built and expanded facility in San Diego in April 2007, which also houses the Company's corporate headquarters. On a pro-forma basis, prior to the merger with NexMed, we estimate that Bio-Quant's revenues were approximately \$5.0 million in 2008 and \$5.7 million in 2009.

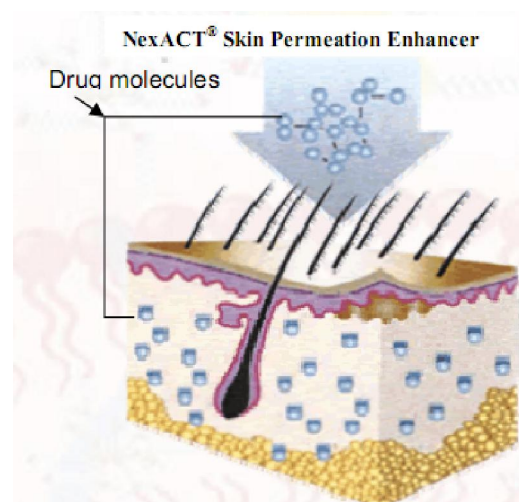
### NexMed USA

NexACT, a multi-route drug delivery technology, utilizes patented highly effective, novel excipients or "penetration enhancers" to dramatically improve absorption and bioavailability of drugs. Varying the concentration of the enhancer allows for local or systemic delivery of drug, as desired. The NexACT Multi-route drug delivery system represents an important breakthrough in improving the delivery of compounds currently administered via alternate routes by improving bioavailability and penetration. What's more, Apricus has established a favorable safety and efficacy profile for this technology through prior clinical studies, having tested approximately 5,000 patients to date.

NexACT is designed to enhance the delivery of an active drug to the patient, and if successful, could improve therapeutic outcomes and reduce systemic side effects that often accompany existing oral and injectable medications. Apricus has applied the NexACT technology to a variety of compatible drug compounds and delivery systems since the Company's inception, both on its own and through development partnerships, including new topical treatments for male and female sexual dysfunction, nail fungus, psoriasis, and other dermatological conditions. More recently, through the 2009 acquisition of Bio-Quant, NexMed has utilized this CRO's research and development capabilities to expand the potential applications of the NexACT technology into the medical areas of oncology, inflammation, immunology and metabolic diseases.

Through its previous development work, Apricus has established that the NexACT technology effectively allows:

1. **Topical/transdermal delivery of drugs** – NexMed's patented technology utilizes highly effective permeation enhancers to overcome the skin's natural barrier properties, enabling the rapid penetration of high concentrations of active drug directly to the target site or area of diseased skin. These NexACT permeation enhancers temporarily change the permeation dynamics of the skin so that active drug molecules can be rapidly absorbed to or through the skin into the body. The enhancers can be formulated using off-patented drugs of well-known efficacy and safety into standard

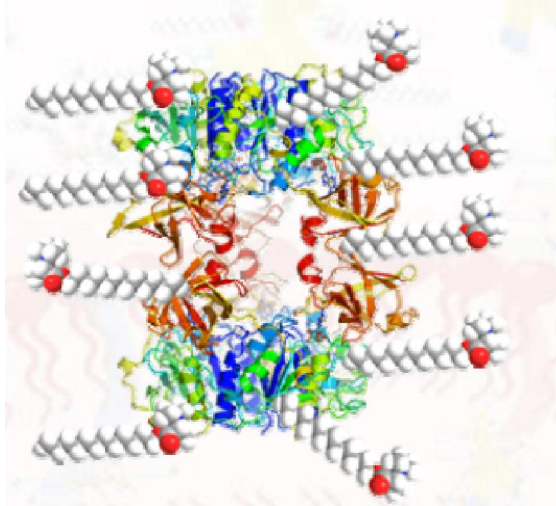


preparations, such as creams, gels, sprays, ointments, lotions, solutions or patches. In terms of chemistry, the enhancer molecules are esters of fatty acids and amino alcohols/acids, similar in structure to naturally-occurring proteins and lipids. NexACT-88 (DDAIP HCl) is one permeation enhancer in late stages of commercial development. NexMed has generated data using over 22 different small molecule-based and protein-based drug formulations: included in a partnership-oriented internal publication are data from studies using NexACT technology to deliver Alprostadil, Ketoprofen, Ondansetron, and Terbinafine. The illustration to the right on the proceeding page graphically depicts topical/transdermal drug delivery using NexACT technology;

2. **Subcutaneous delivery of drugs in a depot-like fashion with improved bioavailability** –

The NexACT subcutaneous drug delivery technology provides a highly bioavailable and extended release formulation approach, utilizing the same proven ingredients as the Company's topical/transdermal technology to surround and protect the key Active Pharmaceutical Ingredient (API) and allowing for fast exit from subcutaneous to systemic circulation. NexACT also employs skin permeation enhancers as it does in its transdermal products, including NexACT-88 (DDAIP HCl). In the Company's partnership material, data from several model drug formulations are presented, including Taxol and Insulin tested in rats and mice, respectively. Among the potential advantages to partners using the NexACT technology include more patient-friendly administration, such as once-a-day or once-multiple-days application rather than daily multiple injections, as well as product life cycle management and patent life extension. The illustration to the right depicts the mechanism of action for Apricus' NexACT subcutaneous drug delivery technology;

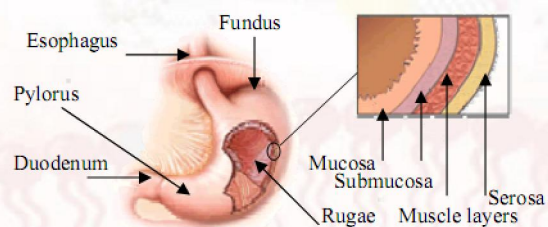
*NexACT® Platform Technology- Subcutaneous*



3. **Oral delivery of poorly permeable/soluble compounds including compounds belonging to BCS 2 to 4 categories;**

The NexACT oral delivery technology employs the same permeation enhancers as in its other technology platforms, but in this application NexMed can vary the active ingredients used in order to either slowly release the API into the circulation or increase the release of the API into circulation. The NexACT molecules are permeation enhancers (such as DDAIP HCl) that temporarily change the permeation dynamics of the lipid bilayer so that the active drug molecules can be rapidly absorbed into systemic circulation through the stomach and/or intestine. For partnership applications, data has been generated through a number of model drug formulations, including with Taxol and Lansoprazole, with the ultimate goal of this technology to replace the use of injection for certain therapeutics through oral administration. The graphic to the right depicts the mechanism of action of NexACT technology for oral drug delivery;

*NexACT® Platform Technology- Oral Stomach*



4. **Transbuccal delivery** (the inner lining of the mouth) – Just recently, Apricus announced the publication of new data from a Transbuccal delivery study conducted at the Rutgers School of Pharmacy highlighting the ability of NexACT enhancers to improve permeation of ondansetron (brand name Zofran), a therapeutic treatment for nausea and vomiting associated with chemotherapy and post-surgery. Transbuccal drug delivery could potentially enable the delivery of drugs that cannot be delivered orally, transdermally or intravenously; and

5. **Rectal delivery of biologics**, such as human antibodies – Apricus has also published pre-clinical results from a pharmacokinetic study that showed that rituximab (Genentech's Rituxan) formulated with

NexACT delivered rectally yielded similar blood levels of the monoclonal antibody as compared to subcutaneous delivery.

In addition to drug delivery applications, the NexACT technology has been qualified as an anti-Microbial preservative, having been effective in killing more than 23 strains of bacteria, fungus and mold and passing a Preservative Efficacy Test (PET) conducted by the US Pharmacopeia (USP). The Company believes, therefore, that NexACT could have the potential to compete with commonly used preservatives such as parabens in cosmetic products, with added benefits of fewer allergic reactions.

The Company's products under clinical development, with accepted IND submissions, and in pre-clinical development are as follows:

## Products under Clinical Development/Approved

### *Vitaros*

Vitaros (formerly Alprox-TD) is a topical alprostadil-based cream treatment intended for patients with erectile dysfunction. Alprostadil is one of a class of pharmaceuticals termed vasodilators and has been approved by the FDA for erectile dysfunction in several different forms, including gels, suppositories and by injection, as well as for certain neo-natal/pediatric indications. Although characterized by somewhat mature growth and heated competition, the worldwide market for erectile dysfunction treatment remains a \$2 billion annual market (ex-US), and Apricus hopes to market its proprietary formulation based on several key advantages, including:

- 1) **Direct application** – Unlike the leading oral pharmaceuticals, Viagra, Cialis, and Levitra, Vitaros is applied directly to the penis as a cream, avoiding systemic absorption, reducing side effects and serving as a more patient-friendly alternative;
- 2) **More localized action** - Vitaros' key ingredient, alprostadil, operates by a different mechanism than oral medications, and has been shown to cause erections in a more localized fashion and with very rapid onset in a matter of minutes, as compared with the 30 minutes claimed by the fastest of the other leading medications.

In mid-November 2010, Apricus was granted marketing approval by Health Canada for Vitaros as a first-time therapy for erectile dysfunction in **Canada**. Subsequently, the Company appointed the Therapex division of E-Z-EM Canada, a subsidiary of Bracco Pharma of Italy, as manufacturer of Vitaros in Canada and also potentially in Europe, should approvals be granted. Apricus' management is targeting Q1 or Q2/2011 for initial availability of Vitaros in Canada.

In **Europe**, Apricus is pursuing a decentralized regulatory filing strategy with the first Marketing Authorization Application (MAA) planned for the United Kingdom. The Company is currently seeking marketing partners in Europe, either on a regional basis or country-by-country basis, and may either approach the relevant country regulatory agencies themselves or defer to a partner. To that end, Apricus has already reached out to regulatory agencies in the United Kingdom, Germany and the Netherlands, three of the largest markets for ED drugs in the EU. The Company hopes to make its first regulatory filing in Europe in 2011 and launch in 2012 should approval be granted.

In the US, Apricus has licensed Vitaros to Warner Chilcott, under a licensing agreement initially signed in 2007 and appended in 2009. In 2008, the FDA issued a non-approvable action letter in response to the New Drug Application for Vitaros; subsequently representatives from the Company and Warner Chilcott have met with the agency and in late 2009 Warner submitted a Carcinogenicity Advisory Committee (CAC) assessment package to the FDA to address certain issues related to carcinogenicity studies. Apricus expects to receive a response from the FDA related to the NDA next year, and although Warner is not obligated under the most recent agreement to continue development of Vitaros in the US, Company management is optimistic that should a

positive response be received from the FDA its partner will finish the final steps required by the FDA for final approval.

### ***Femprox***

Femprox is an alprostadil-based cream product intended for the treatment of female sexual arousal disorder. Apricus has completed nine clinical studies on Femprox to date, including a 98-patient Phase 2 study in the US and a 400-patient study in China, where study costs are lower. Currently, Apricus is actively seeking a co-development partner or partners for Femprox, and the Company intends to move this clinical development program ahead only when one or more partners are signed. Unlike the deeply competitive male sexual dysfunction market (especially ED), the market for pharmaceuticals for women patients is relatively untapped, and could be even larger if effective treatments are introduced into the market.

### ***MycoVa***

MycoVa (formerly NM100060) is a proprietary topical nail solution for the treatment of onychomycosis, or nail fungus infection. Apricus is currently evaluating the feasibility of filing an MAA for MycoVa in Europe, based on the results of the Company's 900 patient comparator study versus Loceryl, a topical nail lacquer currently marketed in Europe. This earlier study showed comparable safety and efficacy profiles for the two patient arms in patients with mild to moderate toenail fungus. The Company had originally licensed this product in the US and Europe to Novartis, and although this agreement was terminated in 2009, Apricus more recently has completed further analysis of two pivotal Phase III studies completed by Novartis and is sharing this information with potential development partners.

## **Products with accepted IND Submissions**

### ***PrevOnco***

In March 2010, Apricus purchased the rights to PrevOnco, a treatment for solid tumors using lansoprazole, a well-known anti-ulcer compound (PrevAcid). Prior to purchasing this program, PrevOnco had previously received Orphan Drug Status from the FDA for the treatment of human hepatocellular carcinoma (HCC), or liver cancer. Following the acquisition of this program, Apricus filed an IND in late March 2010 including a proposed Phase 2 clinical program, and soon after in April 2010 the FDA cleared PrevOnco to proceed with Phase 2 trials as a first line therapy for treating HCC and also provided the Company the opportunity to move PrevOnco directly into a Phase 3 trial. Accordingly, in November 2010, Apricus filed the protocol for a proposed Phase 3 clinical trial of PrevOnco under the Special Protocol Assessment process with the FDA.

The proposed Phase 3 protocol would enroll up to 218 patients with advanced, unresectable HCC who no longer respond to Nexavar in two arms:

- 1) PrevOnco with Nexavar and doxorubicin; and
- 2) Nexavar and doxorubicin and placebo.

Nexavar is currently the first-line therapy for HCC patients, with close to \$1 billion in annual sales, marketed in the US by Onyx Pharmaceuticals and Bayer, and also approved in more than 90 countries for the treatment of HCC. The Phase 3 study is expected to last 12-24 months depending on the recruitment of patients.

In addition, Apricus has developed a new oral lansoprazole formulation incorporating the proprietary NexACT drug delivery technology, which has been shown to enable the administration of a reduced dose of lansoprazole, and the Company may later seek FDA approval to substitute this new version. Apricus is currently seeking partners for PrevOnco both in the US and Europe.

## **RayVa**

RayVa is a topical alprostadil-based treatment for Raynaud's Syndrome, a disorder in which the fingers or toes of a patient suddenly experience decreased blood circulation, thus leading to changes in skin coloration upon exposure to cold or emotional stress. Although in many cases this is simply an inconvenience for patients, chronic recurrent cases of Raynaud's Syndrome can result in atrophy of the skin, tissue or muscle, and even in rare cases can cause ulcers and gangrene. RayVa's active ingredient alprostadil is a potent vasodilator which may be able to optimize blood flow and therefore relieve symptoms. Apricus recently received FDA guidance regarding a Phase 3 study guide for RayVa for Raynaud's Syndrome secondary to scleroderma, including an agreement by FDA officials to receive a Phase 3 Special Protocol Assessment clinical trial for review. Apricus is currently working to finalize the Phase 3 SPA protocol, intends to submit the protocol shortly and also is actively seeking a development partner.

## **Drug Candidate Pipeline**

### **Oncology**

Apricus has recently advanced a number of new compounds employing NexACT technology into preclinical development, including the following well-known therapeutics in the oncology area:

**Taxol (paclitaxel)** – Taxol, now sold under the generic paclitaxel name, is one of the leading treatments for breast, lung and ovarian cancers, and is currently administered through an intravenous infusion that can take up to 24 hours to complete. Apricus has recently announced results from pre-clinical studies that support the ability of NexACT technology to deliver both an oral formulation (January 2010) and a subcutaneous, depot-like slow release fashion (March 2010) of paclitaxel in animals. The next step for Apricus will be to obtain funding and/or a partner to pursue human clinical trials of NexACT-enhanced paclitaxel.

**Neupogen (Filgastim)** – Neupogen, marketed by Amgen, is widely prescribed to speed neutrophil (white blood cell) recovery in patients following a variety of chemotherapy treatments and bone marrow transplants and Filgastim is the active drug in Neupogen. Apricus is developing Nupen, a topical formulation of Filgastim using NexACT technology, and the Company recently announced that the Moores Cancer Center at the University of California, San Diego has filed an Investigation New Drug Application (IND) with the FDA for approval to test Nupen. Pending FDA approval of the IND, Moores UCSD will initiate a Phase 1, 10 patient study of self-administered Nupen, in order to evaluate the safety and tolerability of Nupen in healthy adults.

**Rituxan (Rituximab)** – Rituximab is a monoclonal antibody marketed by Genentech and Biogen IDEC for the treatment of a variety of cancer indications, including Non-Hodgkin's Lymphoma, Chronic Lymphocytic Leukemia, as well as Rheumatoid Arthritis, under the Rituxan brand name. Rituxan is typically administered via intravenous infusion in a hospital setting. Apricus has completed animal studies delivering rituximab incorporated with NexACT technology in subcutaneous fashion, evidencing improved bioavailability and easier administration of the active ingredient. The Company intends to move forward into human bioequivalency studies in human clinical trials subject to capital funding and/or a development partner.

**Fluorouracil (5-Fu)** – Fluorouracil, sometimes known as 5-Fu and sold under the trade names Adrucil, Carac, Efudex and Fluoroplex, is one of the oldest chemotherapy drugs, used both systemically and topically. Apricus has conducted feasibility studies on a topical medication incorporating 5-Fu and NexACT technology to treat pre-cancerous conditions such as actinic keratoses and genital warts. Because of the highly efficient skin permeation of the Company's formulation, it is believed that a greatly reduced dose of 5-Fu could be used, thus reducing side effects which are especially undesirable for use on facial areas. The next step for Apricus would be signing a development partner for this product to enter human clinical trials.

### Other Medical Areas

**PsoriaVa** – PsoriaVa is a proprietary formulation of calcipotriene and betamethasone dipropionate, currently marketed under the trade name Taclonex by Leo Pharma for the treatment of psoriasis. PsoriaVa employs NexACT technology to enhance the skin penetration of the active ingredients, thus reducing the amount of API needed to lower side effects. Apricus has conducted extensive pre-clinical and stability studies on PsoriaVa and anticipates commencing human proof-of-concept clinical trials in the near future.

**Lidocaine** – Lidocaine is one of the most accepted and oldest forms of mild to moderate anesthesia, used in many indications including as local anesthesia during medical procedures such as minor surgery and before needle insertion for venipuncture and catheter insertion. However, slow onset of action (in some cases up to 60 minutes or longer) is a deterrent in use of Lidocaine in many instances. Apricus has developed a fast-acting lidocaine local anesthesia gel using EMLA cream (the common active ingredient) and employing NexACT technology, which has increased onset of lidocaine delivery to as little as 15 minutes, and is currently identifying potential partners to further develop this product in anticipation of human proof-of-concept trials.

**Insulin** – In pre-clinical studies, Apricus has successfully demonstrated the ability of NexACT technology to deliver insulin (as well as other large molecule drugs) subcutaneously in a slow release, depot-like fashion over a 24-hour period from a single injection. Pre-clinical data has shown bio-equivalency to Lantus, an injected insulin marketed by Sanofi-Aventis for treating diabetes, in controlling glucose levels in the blood. Apricus is actively pursuing potential development partners for co-development of subcutaneous insulin and other large molecule drugs.

**Table 1 on page 14 outlines Apricus Bio’s product pipeline**, potential market size, and upcoming catalysts/timeline related to investor interest.

### Intellectual Property

Apricus holds ten US patents and a series of patent applications that have been filed in connection with the NexACT technology and/or proprietary NexACT-based product candidates. The patent expiration dates range from 2017 through 2026, thus the Company has adequate time coverage to protect its intellectual property. In addition to its US patents and pending applications, Apricus Bio has filed corresponding international applications under the Patent Cooperation Treaty. The following chart outlines the Company’s US patents issued and the corresponding expiration date, sorted by date. The key patent listed below is number 5, “Crystalline Salts of dodecyl 2-(N,N-Dimethylamino)-propionate”, the DDAIP-related composition of matter patent on Apricus’ NexACT technology:

Patent Name	Expiration Date
Compositions and Methods for Amelioration of Human Female Sexual Dysfunction	2017
Topical Compositions for PGE1 Delivery	2017
Topical Compositions for Non-Steroidal Anti-Inflammatory Drug Delivery	2017
Medicament Dispenser	2019
Crystalline Salts of dodecyl 2-(N,N-Dimethylamino)-propionate	2019
Topical Compositions Containing Prostaglandin E1	2019
CIP: Topical Compositions Containing Prostaglandin E1	2019
Topical Stabilized Prostaglandin E Compound Dosage Forms	2023
Antifungal Nail Coat Method of Use	2026
Stabilized Prostaglandin E Composition	2026

## Recent Results

Apricus filed its Q3/2010 10Q in mid-November and held a management conference call but did not issue a press release on the quarterly results. For the quarter, the Company recorded \$1.2 million in revenues, compared with \$110,000 in the prior year quarter. Revenue growth was led by the sale of CRO services by Bio-Quant; while in Q3/2009 revenues accrued were only from license fee revenues attributable to the sales of Vitaros US development rights to Warner Chilcott. Cost of services for the quarter was \$1.0 million, representing gross margins of 13% during the quarter; there were no corresponding service costs in the prior year period. Research and development costs increased in the quarter to \$514,000 from \$310,000 in the prior year period, primarily due to increased development activities related to NexACT technology feasibility and clinical studies. General and administrative expenses rose to \$2.1 million in Q3/2010 from \$714,000 in Q3/2009, primarily due to added overhead from the Bio-Quant acquisition but also due to costs associated with holding a Special Shareholders' meeting in September 2010, expected to be a non-recurring expense. Of these expenses, approximately \$530,000 was for non-cash items such as stock option compensation, depreciation and amortization, versus \$465,000 in the prior year period. Interest expense declined in Q3/2010, to \$160,000 from \$276,000 in the prior year period, due to non-cash interest expense recorded in 2009 but not this year. Altogether net loss for Apricus Bio was \$2.6 million in Q3/2010 or (\$0.20) per share, versus \$1.2 million, also (\$0.20) per share in Q3/2009. Shares outstanding were 12.8 million in Q3/2010 and 5.9 million in the prior year period.

Cash burn during the quarter was approximately \$2 million.

## Balance Sheet and Operating Cash Flow

Apricus maintained \$1.8 million in cash and equivalents at September 30<sup>th</sup>, 2010 and \$600,000 in restricted cash, offset by \$4 million in convertible notes payable and a little over \$400,000 in short-term bank borrowings. However, subsequent to the end of the quarter, in October 2010, the Company received net proceeds of \$8.5 million from an equity offering. At current cash burn rates of approximately \$500,000 per quarter, existing cash balances are expected to provide sufficient funds through 2011. However, should the Company step up its clinical development programs, its current levels of cash burn could increase dramatically. Alternatively, the Company could offset current and potential future R&D outlays with prospective license fees, sales royalties, and joint venture milestone payments garnered through current and potential new partnerships. We are also forecasting that growth in Bio-Quant service revenue as well as increased fees from R&D activities will reduce the Company's net losses and operating cash burn next year, and even potentially allow the Company to break-even in fiscal 2012.

## Outlook/Growth Drivers

Apricus Bio has bolstered its balance sheet recently and now has plenty of financial resources to pursue its numerous and diverse drug delivery technology R&D programs. We forecast that financial results for the current quarter, Q4/2010, will be similar with those of the most recent quarter – revenues of \$1.5 million and a net loss of \$2.2 million or (\$0.12) per share. Starting next year, fiscal 2011, we are projecting that Vitaros will begin to contribute license fee and royalty revenue in Canada as well as license fee revenues in Europe and perhaps other international markets, and also that the Company will begin to see license fees, milestone payments, and/or R&D cost reimbursement from partnerships signed for its other NexACT pipeline programs. We are also forecasting growth in sales of CRO services at Bio-Quant, although the amount of resources Apricus shifts to aid NexMed projects could cut into this growth. Altogether, we are forecasting that Apricus Bio will accrue \$11.5 million in revenues in 2011, and record a net loss of \$4.2 million, or (\$0.21) per share.

For 2012, we are estimating that revenues at Apricus will be \$17 million, with break-even net income, fueled primarily by growth in license fee revenue but also from increased contribution from Bio-Quant. Based on the

current levels of cash resources on hand following the recent equity offering and our projections for future profit/loss and cash flow, we do not anticipate the Company needing to raise additional equity capital in the short-term or long-term future, although an acquisition or initiation of new clinical programs could change this equation. However, such a potential future strategy might also be associated with an enterprise value-creating transaction, thus would warrant the additional resources spent by the Company.

## Management

**Bassam Damaj, Ph.D.** is President, Chief Executive Officer and Director of Apricus Biosciences. Dr. Damaj was a co-founder of Bio-Quant Inc. in 2000 and was appointed to his current positions at the Company in December 2009 in connection with the acquisition of Bio-Quant. Prior to joining Bio-Quant, Dr. Damaj served in executive and scientific positions with Tanabe Research Laboratories, Pharmacopeia, Genentech, Pfizer and the National Institutes of Health. Dr. Damaj holds a Ph.D. degree in Immunology/Microbiology from Laval University and completed a postdoctoral fellowship in molecular oncology from McGill University, both located in Quebec, Canada.

**Vivian H. Liu** has been Executive Vice President and Chairman of the Board of Apricus since December 2009. Prior to her current positions with the Company, Ms. Liu was President and CEO from June 2007 to December 2009 and also held other positions with the Company since 1995. Prior to joining Apricus, Ms. Liu was a business and investment adviser to the government of Quebec and numerous Canadian companies. Ms. Liu received a bachelor's degree from the University of California, Berkeley and an MPA degree in International Finance from the University of Southern California.

**Henry J. Esber, Ph. D.** is Executive Vice President of Bio-Quant and a Director of the Company. Dr. Esber joined Apricus in December 2009, after serving as a co-founder and Chief Business Development Officer of Bio-Quant since 2006. Prior to joining Bio-Quant, Dr. Esber served in management positions with Charles River Laboratories, Primedica, Genzyme Transgenics, Bio-Development Laboratories, TSI Corporation, and EG&G Mason Research Labs. Dr. Esber holds a B.S. degree in Pre-medicine from Old Dominion, a Master of Science Degree in Public Health from the University of North Carolina, and a Ph.D. degree in Immunology/Microbiology from West Virginia University.

**Mark Westgate** has been Vice President, Chief Financial Officer and Treasurer of the Company since December 2005. From March 2002 until December 2005, Mr. Westgate served as Controller of the Company. Prior to joining Apricus, Mr. Westgate served in financial positions with Lavipharm Laboratories and Richard A. Eisner Company. Mr. Westgate is a Certified Public Accountant and holds a BBA degree in public accounting from Pace University.

**Edward Cox** has been Vice President, Investor Relations and Corporate Development of Apricus since December 2009 and served as the President and a director of Bio-Quant since January 2007. Prior to joining the Company, Mr. Cox served as a Director of TomCo Energy and acted as a Business Strategist and Consultant for a number of companies. Mr. Cox holds a Master of Science degree in Business from the University of Florida.

Other key employees of Apricus include **Linda Smibert, Vice President of Business Development** since May 2010 after previously holding Business Development management positions at Santarus, Bristol-Myers Squibb and Zeneca; **Mark S. Wilson, Vice President of Technology Development** since May 2010 after prior positions in Business Development at CONNECT and Halozyme Therapeutics; **Terry Ladd, Vice President of Business Development of Bio-Quant** since April 2010, after previous experience with Calvert Laboratories, MDS Pharma Services, Skeletech, Phoenix International Life Sciences, Chrysalis International, Pharmakon and ITR Laboratories; **Richard Martin, Ph. D., Vice President of Chemistry** since April 2010, after prior positions with RetroVirox, Inc., Tanabe Research and Exelixis; and **Mohammed Hachicha, Ph.D., Vice**

**President, Research and Development of NexMed** since July 2010, after previous experience with Forest Laboratories and Purdue Pharma.

In addition to management team members Dr. Damaj, Ms. Liu, and Dr. Esber, Apricus' board includes **Dr. Roberto Crea**, currently President and CEO of ProtElix and a former scientific co-founder of Genentech; **Dr. Deirdre Gillespie**, currently President and CEO of La Jolla Pharmaceutical; **Leonard Oppenheim**, formerly a principal at Montgomery Securities; and **Rusty Ray**, currently a partner with Brocair Partners, a healthcare focused investment bank.

### Stock Valuation/Comparables

We have compiled a two-tiered stock comparison group for Apricus, separated by stage of company, including Clinical Research Organizations such as Covance (NYSE/CVD/Not Rated); ICON Plc (Nasdaq/ICLR/Not Rated); and PPD Inc. (Nasdaq/PPDI/Not Rated) as well as drug delivery/specialty pharmaceutical firms such as Antares Pharma (ASE/AIS/Neutral); BioSante (Nasdaq/BPAX/Not Rated); DepoMed (Nasdaq/DEPO/Not Rated); Columbia Labs (Nasdaq/CBRX/Not Rated) and Spectrum Pharmaceuticals (Nasdaq/SPPI/Not Rated). Using a blended valuation method as described below, we calculated valuations for Apricus' CRO division Bio-Quant, its drug delivery subsidiary NexMed, and its corporate assets, chiefly cash:

1. **Bio-Quant CRO** – Revenues 2010E - \$5.5 million - Average price/revenue multiple for 2010E – 1.8X – Portion value - \$9.8 million – Per share value (based on 18.6 million shares) - **\$0.50**
2. **NexMed Drug Delivery Technology** – Number of Products in Pipeline – 13 – Average multiple for market capitalization(less revenues)/pipeline product – 25.6X – Reduction Factor for early stage of NexMed pipeline – 4X – Portion Value - \$82.0 million – Per share value - **\$4.40**
3. Corporate Assets – Cash and restricted cash (pro forma) - \$10.9 million – Per share value - **\$0.60**

**Total valuation - \$5.50**

Thus, we are recommending that investors purchase these shares with an 18-24 month price target of \$5.50.

### Risk Factors

**We believe an investment in Apricus Biosciences involves the following risks:**

- **FDA and regulatory risks** – Apricus is subject to regulatory review for its ongoing research and development activities, principally the US Food and Drug Administration but also potentially with other regulatory agencies as well, including in Europe, the Middle East and Asia. In addition, the manufacture and handling of the Company's recently-approved Vitaros treatment will be subject to additional regulatory oversight and regulation, as will be future products should these be approved for commercial launch.
- **Reliance on joint venture partners and/or additional capital** — Currently, Apricus has enough cash on hand to fund ongoing research and development programs through calendar 2011, approximately. Alternatively, the Company could obtain partnership agreements or government funding to offset planned R&D spending or to accelerate development of an existing or new R&D program in the pipeline. While other companies in the drug delivery market space have obtained such partnerships or grants in the past, there can be no assurance that the Company will be able to do so in the present environment. However, many of the Company's current management team and directors have successfully negotiated such deals in the past and this may aid efforts for Apricus to do so in the future.
- **Need to defend patents and other intellectual property** – Apricus currently holds 10 US patents on its technology and product pipeline, which have expiration dates between 2017 and 2026, including one key

composition of matter patent related to the NexACT technology. However, the Company may need to defend its patents in the US and overseas in the future, particularly if more products receive approval and are successfully marketed.

- **Lack of Profitability** – Apricus has experienced a series of losses since its inception, and although the Company added revenues this year through the acquisition in December 2009 of CRO services provider Bio-Quant, there can be no assurance that the Company’s operations will turn a profit or become cash flow positive in the near future. However, we are forecasting that in the coming years the Company will see increasing CRO service revenue as well as growing license fees, milestone payments and sales royalties, leading to reduced net losses in the future.
- **Competitive Markets** – Apricus competes in both the drug delivery market and CRO business with a number of larger, more experienced companies. In particular, the CRO industry has experienced a number of consolidations over the years, creating larger, more international firms. However, Apricus’ Bio-Quant division has advantages as the largest CRO in the San Diego, California area, a center for biotechnology research and development, and the Company’s NexMed drug delivery division has amassed a strong pipeline as well as an experienced business development team to compete for potential development partners.

**Apricus Biosciences, Inc.**  
**Consolidated Statements of Operations**  
 (In 000s, except per share data)

FYE December	2007	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10	3Q10	4Q10E	2010E	2011E	2012E
			March	June	September	December		March	June	September	December			
License fee revenue	\$1,270	\$5,957	\$2,467	\$103	\$110	\$2	\$2,681	\$3	\$33	\$3	\$100	\$138	\$4,000	\$8,000
Contract service revenue	0	0	0	0	0	292	292	1,443	1,438	1,191	1,400	5,473	7,500	9,000
Total revenue	\$1,270	\$5,957	2,467	103	110	295	\$2,974	1,446	1,471	1,194	\$1,500	\$5,610	\$11,500	\$17,000
Cost of services	0	0	0	0	0	128	128	1,037	1,022	1,033	1,040	4,133	4,500	5,000
Gross Profit	1,270	5,957	2,467	103	110	166	2,845	409	449	158	460	1,476	7,000	12,000
Costs and expenses														
Research and development	5,023	5,411	602	716	310	255	1,883	426	478	514	520	1,938	2,000	2,100
General and administrative	5,634	5,721	1,091	695	714	1,697	4,196	2,240	2,640	2,090	2,200	9,170	9,500	10,000
Acquisition costs	0	0	0	0	0	585	585	0	0	0	0	0	0	0
Total operating expenses	10,657	11,131	1,693	1,411	1,024	2,537	6,665	2,666	3,118	2,604	2,720	11,108	11,500	12,100
Income (loss) from operations	(9,387)	(5,174)	773	(1,309)	(914)	(2,370)	(3,820)	(2,257)	(2,669)	(2,446)	(2,260)	(9,632)	(4,500)	(100)
Interest expense, net	(206)	(935)	(88)	(118)	(276)	(28,178)	(28,661)	(6,980)	(1,610)	(161)	100	(8,650)	300	200
Income (loss) before tax	(9,593)	(6,109)	685	(1,426)	(1,191)	(30,548)	(32,480)	(9,237)	(4,279)	(2,606)	(2,160)	(18,282)	(4,200)	100
Provision for income taxes	(306)	(938)	0	0	0	(438)	(438)	0	0	0	0	0	0	0
Net income (loss)	(8,787)	(5,171)	685	(1,426)	(1,191)	(30,111)	(32,043)	(9,237)	(4,279)	(2,606)	(2,160)	(18,282)	(4,200)	100
Basic income per share	(\$1.61)	(\$0.93)	\$0.12	(\$0.25)	(\$0.20)	(\$5.10)	(\$5.43)	(\$1.25)	(\$0.47)	(\$0.20)	(\$0.12)	(\$1.53)	(\$0.21)	\$0.00
Diluted income per share	(\$1.61)	(\$0.93)	\$0.12	(\$0.25)	(\$0.20)	(\$5.10)	(\$5.43)	(\$1.25)	(\$0.47)	(\$0.20)	(\$0.12)	(\$1.53)	(\$0.21)	\$0.00
Basic shares outstanding	5,468	5,579	5,626	5,626	5,915	5,906	5,906	7,379	9,140	12,757	18,600	11,969	19,800	20,300
Diluted shares outstanding	5,468	5,579	5,626	5,626	5,915	5,906	5,906	7,379	9,140	12,757	18,600	11,969	19,800	20,300
Key ratios:														
Revenue growth		369.0%					-50.1%	-41.4%	1333.5%	989.1%	408.8%	88.7%	695.4%	30.0%
Gross margin	N/A	N/A	N/A	N/A	N/A	56.3%	95.7%	28.3%	30.5%	13.2%	30.7%	26.3%	60.9%	50.0%
R&D revenue	395.4%	90.8%	24.4%	698.2%	282.9%	86.4%	63.3%	29.5%	32.5%	43.1%	34.7%	34.5%	17.4%	11.0%
G&S revenue	443.5%	96.0%	44.2%	677.1%	651.6%	575.4%	141.1%	154.9%	179.5%	175.1%	146.7%	163.4%	82.6%	30.0%
Depreciation, amort, non-cash comp	\$2,190	\$2,503	\$450	\$375	\$465	\$28,354	\$29,644	\$7,240	\$3,150	\$530	\$550	\$11,470	\$2,000	\$2,200
Operating margin	N/A	N/A	31.3%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.3%
Cash Flow/share	(\$1.21)	(\$0.48)	\$0.20	(\$0.19)	(\$0.12)	(\$0.30)	(\$0.41)	(\$0.27)	(\$0.12)	(\$0.16)	(\$0.09)	(\$0.64)	(\$0.11)	\$0.11
EBITDA/share	(\$1.32)	(\$0.48)	\$0.22	(\$0.17)	(\$0.08)	(\$0.47)	(\$0.50)	(\$0.25)	(\$0.15)	(\$0.15)	(\$0.09)	(\$0.65)	(\$0.13)	\$0.10

**Balance Sheets**

(\$000s)

	12/31/09	9/30/10
<b>Assets:</b>		
Cash and equivalents	\$480	\$1,768
Accounts receivable	709	346
Restricted cash	0	603
Prepaid expenses & other current	578	263
Total current	1,767	2,979
Fixed assets, net	5,617	5,517
Goodwill & intangible assets	13,229	12,960
Other long-term assets	320	176
TOTAL ASSETS	\$20,933	\$21,632
<b>Liabilities:</b>		
Accounts payable	\$1,454	\$980
Accrued liabilities-current portion	374	352
Deferred revenue-current portion	118	135
Due to related parties	12,229	0
Short-term borrowings	0	401
Total current	14,175	1,868
Convertible notes payable	2,990	4,000
Capital lease payable	115	75
Deferred revenue & other	948	925
Stockholders' equity	2,705	14,765
TOTAL LIAB & EQ	\$20,933	\$21,632

**Quarterly Earnings Comparisons**

	March	June	September	December	Total
<b>Revenues (in \$Mill)</b>					
2008	\$952	\$1,200	\$306	\$3,500	\$5,957
2009	2,467	103	110	295	2,974
2010E	1,446	1,471	1,194	1,500	5,610
<b>Earnings per Share</b>					
2008	(\$0.29)	(\$0.29)	(\$0.54)	\$0.20	(\$0.93)
2009	0.12	(0.25)	(0.20)	(5.10)	(5.43)
2010E	(1.25)	(0.47)	(0.20)	(0.12)	(1.53)

Source: Dawson James Securities, Inc. estimates; Company documents

<b>Table 1. Product/Investor Catalyst Timeline</b>						
	<u>Active Pharmaceutical Ingredient</u>	<u>Route</u>	<u>Market Potential</u>	<u>2010E</u>	<u>2011E</u>	<u>2012E</u>
<b>Vitaros - Erectile Dysfunction</b>						
Partnership agreement-Canada	Alprostadil	Topical	\$2 billion	Q4		
Launch - Canada					H1	
Partnership agreement - Europe					3 Markets	3 Markets
Launch - Europe					2 Markets	3 Markets
Approval/Further studies - US					H2	
Partnership/Launch - MENA					H2 (1)	H2 (1)
<b>FemProx - Female Sexual Dysfunction</b>						
Partnership agreement-US	Alprostadil	Topical	\$1-\$2 billion		X	
Begin Phase III - US						X
Partnership agreement - China					X	
Complete Phase III/File - China					H2 or	H1
Pre-filing - MENA					X	
<b>PrevOnco - HCC (Liver Cancer)</b>						
SPA approved/Phase 3 initiated - US	Lansoprazole (PrevAcid)	Oral	\$300 million (Nexavar)		H1	
Partnership agreement - US					X	
Phase 3 initiated - Europe					H2	
Partnership agreement - Europe						X
<b>MycoVa - Onychomycosis (Nail Fungus)</b>						
Marketing authorization application filed - Europe	Terbinafine	Topical	\$500 million (Anti-fungals)		H1/H2	
Marketing application filing - Canada					H1/H2	
<b>RayVa - Raynaud's Syndrome</b>						
Phase 3 SPA filed - US	Alprostadil	Topical	\$100 million	Q4		
Phase 3 initiated - US					H1/H2	
Partnership agreement - US					H1/H2	
<b>PsoriaVA - Psoriasis</b>						
Phase 1/2 initiated - US	Calcipotriene/ Betamethasone	Topical	\$1 billion		H1/H2	
<b>Nupen - Post-chemotherapy recovery</b>						
Phase 1/2 initiated - US	Filgastim	Topical	\$1 billion		H1/H2	
<b>Rituxan - Non-Hodgkin's lymphoma</b>						
Phase 1/2 initiated - US	Rituximab	Subcutaneous	\$500 million		H1/H2	
<b>Insulin - Diabetes</b>						
Phase 1/2 initiated - US	Insulin	Subcutaneous	\$Multi-billion		H1/H2	
<b>Taxol - Squamous carcinoma/oral cancers</b>						
Phase 1/2 initiated - US	Paclitaxel	Subcutaneous/ Oral	\$1 billion		H1/H2	
<b>5-fluorouracil (5-fu) - Pre-cancerous conditions</b>						
Phase 1/2 initiated - US	Adrucil, Etudex, etc.	Topical	\$300 million		H1/H2	
<b>Zofran - Nausea/vomiting from chemotherapy</b>						
Phase 1/2 initiated - US	Ondansetron	Transbuccal	\$200 million		H1/H2	
<b>Lidocaine - pain relief</b>						
Phase 1/2 initiated - US	Lidocaine	Topical	\$200 million		H1/H2	
<b>NexACT - new applications</b>						
Partnership agreements - US	Various	All routes	\$100 million- \$1 billion		2	2
Phase 1/2 initiated - US				1	3	3

**Important Disclosures:**

**Price Chart:**



Price target and ratings changes over the past 3 years:

Initiated – December 13, 2010 – Target \$5.50

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	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Buy	18	75%	6	33%
Neutral	6	25%	5	83%
Sell	0	0%	0	0%
Total	24	100%	11	46%

**Information about valuation methods and risks can be found in the “STOCK VALUATION” and “RISK FACTORS” sections of this report.**

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