



COUGAR BIOTECHNOLOGY

2007 ANNUAL REPORT

30, 90%

Our numbers are creating a buzz.

In a Phase I trial  
of CB7630, 90%\* of  
the patients tested  
experienced a decline  
in PSA.

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\*Data was included in a poster presented by Dr. Charles Ryan, University of California, San Francisco Comprehensive Cancer Center, at the ASCO 2008 Genitourinary Cancers Symposium in February 2008.

At Cougar, we're creating a different breed of biotech company. To minimize investment risk, we acquire compounds that have completed some degree of clinical testing and have shown positive indications of safety and efficacy. We target niche, underserved oncology markets to address large, unmet medical needs. And we leverage our combined business, financial and scientific expertise to advance the commercialization of our products — approaching the development of promising treatments with a fierce intensity some say is unmatched in the industry.

## And that's got people talking.

**“...Cougar may have struck gold with abiraterone, in Phase II for prostate cancer. In early clinical trials, abiraterone has shown striking activity in prostate cancer. Recent science has provided strong rationale to further suppression of androgen receptor signaling as a strategy for ‘hormone-refractory’ prostate cancer. Embodying this approach, the first-in class compound abiraterone has demonstrated significant activities in both PSA\* and tumor responses in a highly pretreated patient population and is so far associated with minimal toxicity.”**

Howard Liang, Ph.D. | Leerink Swann LLC | January 30, 2008

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\* Prostate-specific antigen (PSA) is a protein produced by the prostate that has been shown to rise with the advancement of prostate cancer.

“Cougar has compiled convincing evidence of CB7630’s activity in patients who have failed first-line hormone therapy, second-line hormone therapy, and chemotherapy. In each setting, a majority of treated patients have experienced a PSA response to CB7630 monotherapy and a high percentage of patients with measurable disease have witnessed tumor shrinkage.”

Eric Schmidt, Ph.D. | Cowen and Company | January 2008

#### PRODUCT PIPELINE

Drug	Indication	Preclinical	I	II	III	Registration	
<b>CB7630</b> (Abiraterone Acetate)	Prostate Cancer	[Progress bar spanning Preclinical, I, II, and III phases]					
<b>CB3304</b> (Noscapine)	Multiple Myeloma	[Progress bar spanning Preclinical and I phases]					
<b>CB1089</b> (Seocalcitol)	Cancer	[Progress bar spanning Preclinical and I phases]					
<b>CB6604</b> (ER Noscapine)	Cancer	[Progress bar spanning Preclinical phase]					
<b>Noscapine Analogs</b>	Cancer	[Progress bar spanning Preclinical phase]					

# We have impressive results to report.

#### COUGAR BIOTECHNOLOGY (NASDAQ: CGRB) DAILY TRADING SUMMARY\*

\* From February 8 through December 6, 2007, Cougar Biotechnology traded on the OTC Bulletin Board\* under the symbol "CGRB.OB." On December 7, 2007, Cougar moved to the NASDAQ Global Market<sup>SM</sup> and began trading under the symbol "CGRB." The chart to the right reflects closing prices through April 4, 2008.





## TO OUR SHAREHOLDERS

2007 brought significant achievements and advancements to Cougar Biotechnology. We continued to make strong progress in advancing our drug candidates through clinical development and in strengthening the Company's balance sheet. In addition, we significantly raised our investment profile with a listing on the NASDAQ Global Market<sup>SM</sup>. As a result, we are well-positioned to move forward aggressively with developing our pipeline. It gives me great pride to reflect on the Company's accomplishments last year, and even greater pride to recognize our potential in 2008 and beyond.

### **CB7630: Phase III Trial Commences**

It was an exciting year for us with the development of CB7630 (abiraterone acetate), our lead product candidate for the treatment of advanced prostate cancer. Over the course of 2007, we presented promising clinical data from ongoing Phase II trials that continued to demonstrate the drug's strong activity as a second-line hormonal therapy in hormone-refractory prostate cancer patients. Perhaps even more impressive, we demonstrated for the first time that CB7630 had compelling clinical activity as a second-line chemotherapy in patients who failed Taxotere-based chemotherapy. In 2008, just two-and-a-half years since our commencement of the first Phase I trial, I am proud to report that we have advanced CB7630 into Phase III. The initiation of this trial is an important milestone in the global development of CB7630 and we view it as a testament to our dedication to this clinical development program.

### **Additional Pipeline Advancement**

In 2007, we also moved forward with the development of other promising drugs in Cougar's pipeline. Notably, in December we initiated a Phase I trial of CB3304 (noscapiene) in patients with relapsed or refractory multiple myeloma. This represents the second drug in Cougar's pipeline to advance into clinical development and we look forward to its continued clinical development in 2008. We also made significant progress with our clinical strategy for CB1089 (seocalcitol), and we anticipate the drug's further advancement in 2008.

### **Growth of Management Team and Board of Directors**

Expansion of our management team and Board of Directors was a key to our success in 2007. We welcomed Dr. Arturo Molina as Senior Vice President of Clinical Research and Development and Dr. Richard Phillips as Vice President of Regulatory Affairs and Quality Assurance. Each brings more than 20 years of experience in his respective areas of expertise.

We added two distinguished directors to our Board: Mr. Thomas Malley and Dr. Samuel Saks. Mr. Malley's wealth of investment acumen, which is the product of 16 years of investment experience

at Janus Capital Management, has been extremely valuable as we continue to execute on our business plan. Dr. Saks' extensive experience in successfully building biopharmaceutical companies and in developing and commercializing novel therapeutic products also has been an asset to our Board and management team.

Most importantly, each of these new additions shares the Company's commitment to build shareholder value and bring much-needed therapies to underserved patients.

### **Strengthened Financial Profile**

In our first year as a publicly traded company, we completed two private placements that resulted in total gross proceeds of \$137 million. We were pleased to report to shareholders that the investors in these placements included both new and existing institutional investors and represented some of the leading institutional investors in biotechnology. As a result of these placements, we are in a strong position to continue to advance Cougar's pipeline and to capitalize on our potential.

### **Looking Forward**

I am proud to lead Cougar during this exciting time in our history. We look forward to continuing to build value for shareholders as we believe Cougar is extremely well poised for great success in the coming years.

I would like to acknowledge the contributions of Cougar's employees, whose skills, experience and commitment enabled us to execute successfully in 2007 and will enable us to continue that momentum.

On behalf of the Company and its Board of Directors, I also would like to take this opportunity to sincerely thank our loyal shareholders for their ongoing support.

ALAN H. AUERBACH  
Chief Executive Officer and President

# 61%

**61%\* of patients tested showed a confirmed PSA decline of >50%.**

## CB7630 FOR PROSTATE CANCER

**“Early efficacy data in multiple prostate cancer settings indicates the opportunity for multiple paths to market; abiraterone could redefine AIPC (androgen independent prostate cancer).”**

Joel Sendek | Lazard Capital Markets | June 27, 2007

### **CB7630 Stalks Prostate Cancer**

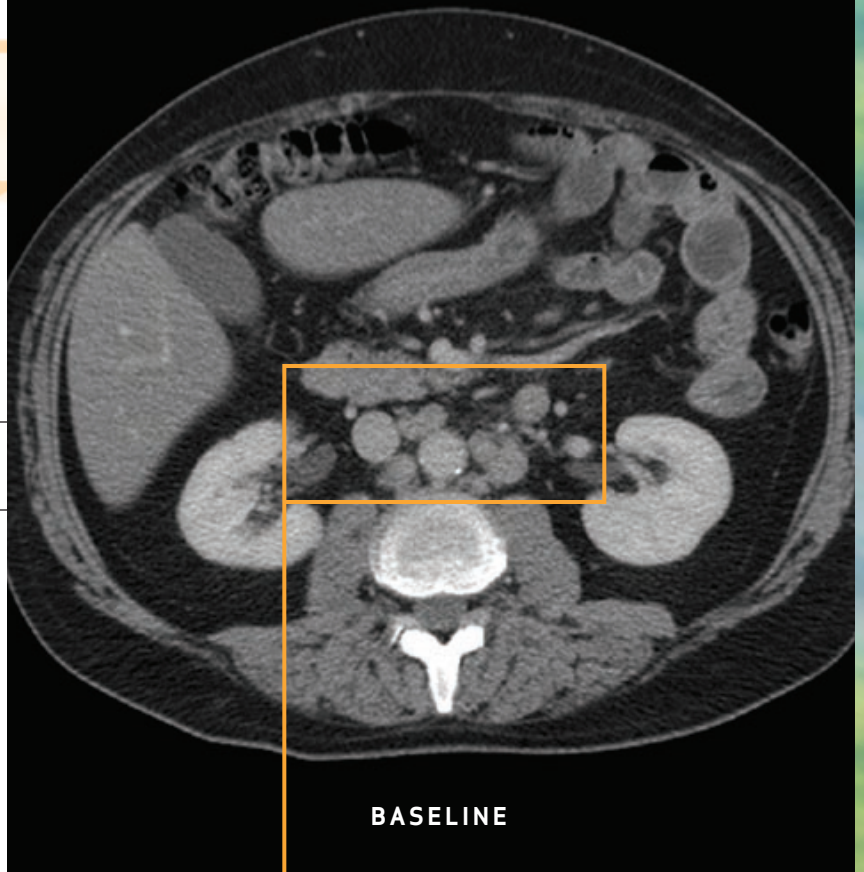
Prostate cancer is the most common malignancy in men and the second leading cause of cancer death in men. According to the American Cancer Society, in the United States alone the disease is expected to account for 186,320 new diagnoses and nearly 28,700 deaths in 2008. Approximately 650,000 patients in the U.S. are receiving first-line hormonal therapy for the treatment of prostate cancer. While many men will initially respond to treatment, most will relapse – and face few other treatment options. Currently, no drugs are approved as second-line hormonal therapy for the treatment of prostate cancer. This reality drives our vigorous pursuit of CB7630 (abiraterone acetate), an orally administered inhibitor of the steroidal enzyme involved in testosterone production, which is believed to play a role in the progression of the disease. Our strategy is two-fold: to develop our lead compound as a second-line therapy for patients who have failed standard hormone therapy, as well as for those patients who have relapsed following standard chemotherapy.

### **Encouraging Results**

In February 2008 we released interim results from four ongoing clinical trials demonstrating the efficacy of CB7630. In our Phase II trial that is being conducted in the United Kingdom, 61% of evaluable subjects achieved a confirmed drop in PSA of greater than 50%, while 25% achieved a drop of greater than 90%. In addition, 57% of evaluable patients with measurable disease showed confirmed partial radiological responses (as measured by RECIST criteria), 33% showed ongoing stable disease and 14% experienced bone disease regression. We have initiated our first Phase III trial in our determined effort to bring CB7630 closer to commercialization.

\* Data was included in a poster presented by Dr. Alison Reid, The Institute of Cancer Research and The Royal Marsden NHS Foundation Trust, at the ASCO 2008 Genitourinary Cancers Symposium in February 2008.

# patient



**BASELINE**

## CB7630—U.S. PROSTATE CANCER MARKET 2008

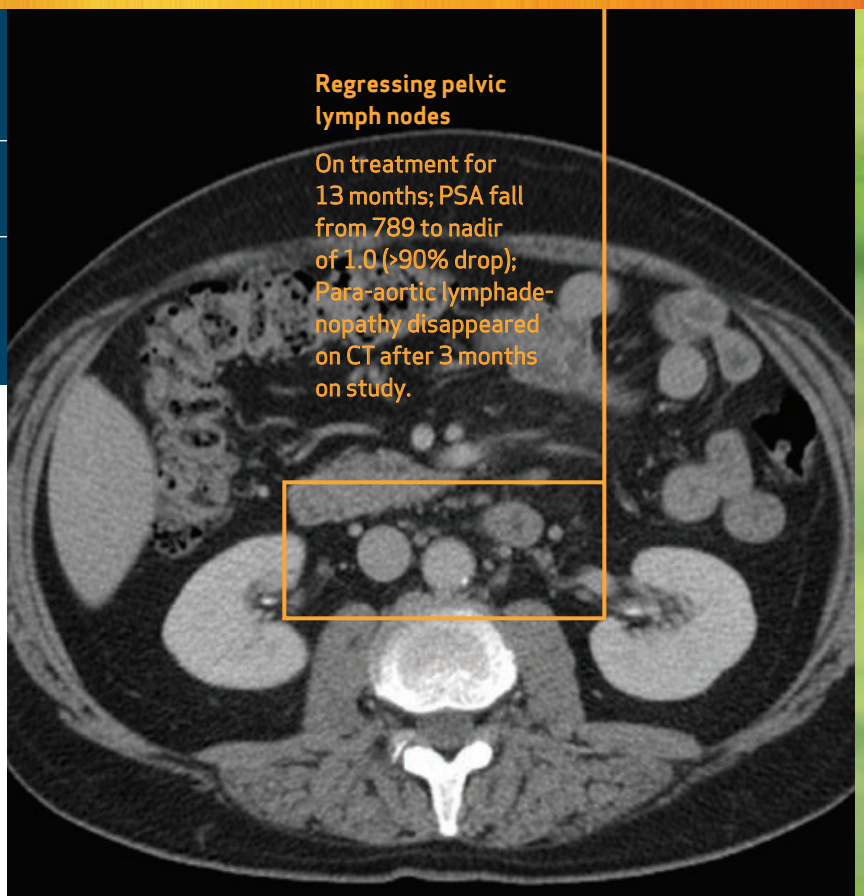
Most common cancer in men with 186,320 new cases expected in 2008

650,000 patients in the U.S. receive first-line hormonal therapy for prostate cancer

No drugs specifically approved as second-line hormonal therapy

**Regressing pelvic lymph nodes**

On treatment for 13 months; PSA fall from 789 to nadir of 1.0 (>90% drop); Para-aortic lymphadenopathy disappeared on CT after 3 months on study.



**3 MONTHS**

# 30-80%

Following exposure to CB3304, *in vivo* studies show growth delays of 30 – 80% in tumor volumes.

## CB3304 AND CB6604 FOR MULTIPLE MYELOMA

“We believe that Noscapine has potential for wide use in both solid and hematological malignancies given: 1) its oral administration (compared with other cytotoxics, which are administered intravenously); 2) the differentiated mechanism by which it targets the microtubules, which may allow it to be effective in cancers that have become refractory to other microtubule inhibitors; and 3) the potential for a milder toxicity profile because it may not affect healthy cells as much as other cytotoxics and may be effective in smaller doses.”

Simos Simeonidis, Ph.D. | Broadpoint Capital, Inc. (formerly First Albany Capital) | August 20, 2007

### CB3304 – POTENTIAL U.S. MARKET 2008

**Non-Hodgkin's Lymphoma**  
Expected new cases in 2008 – 66,120  
Existing cases (prevalence) – 300,000

**Multiple Myeloma**  
Expected new cases – 19,920

**Renal Cell Cancer**  
New cases – 54,390

### CB3304 and CB6604 Take Aim at Multiple Myeloma

Another innovative compound became the second drug in the Cougar pipeline to advance to clinical trials. In preclinical trials, CB3304 (noscapine) has shown an ability to alter the dynamics of microtubules, block cancer cell division, and cause apoptosis or programmed cell death. Noscapine also appears to be highly selective in killing cancer cells while not damaging normal cells. With its novel binding mechanism and convenient oral administration, this compound (an alkaloid derived from opium) may hold advantages over other drugs in its class in the treatment of hematological malignancies such as non-Hodgkin's lymphoma and multiple myeloma.

### Phase I Clinical Trials Are Now Underway

In the fourth quarter of 2007, we initiated a Phase I/II study to investigate the potential of CB3304 in the treatment of multiple myeloma. This disease – a cancer of the plasma cells in bone marrow – has a particularly poor prognosis; average survival rate from diagnosis is about three years. In the United States alone, some 10,700 people are expected to die from the disease in 2008.

50-200x

**CB1089 has been shown, in preclinical cancer studies, to be 50–200 times more potent than calcitriol in the regulation of cell growth and differentiation.**

#### **CB1089 to Target Cancer**

Our willingness to break new ground in the search for inventive cancer treatments is further evidenced by our development of CB1089 (seocalcitol) for cancer. We have exclusive worldwide rights to CB1089, an analog of calcitriol, which is the biologically active metabolite of Vitamin D. Calcitriol has displayed anticancer activity in preclinical models of prostate, breast, pancreas, colon, skin and brain cancer, among other tumors. However, clinical use has been curtailed by its tendency to elevate blood levels of calcium to life-threatening levels.

In preclinical studies, CB1089 has been shown to be 50–200 times more potent than calcitriol in regulating cell growth and differentiation. Further, CB1089 has proven more powerful in inhibiting tumor cell growth in preclinical models of cancer. Most important, this agent also had significantly reduced calcemic activity.

With our long-term goal of providing viable, new alternatives in cancer therapy, we plan to initiate a Phase I clinical trial in the coming year to explore seocalcitol's possible role in the treatment of cancer.

## SCIENTIFIC ADVISORY BOARD MEMBERS

**“Strategically, we believe Cougar is in an ideal position to take advantage of the immense prostate cancer market... From an investor’s perspective, we believe the company’s approach to shareholder value provides an amount of business acumen not always seen in biotech.”**

Michael G. King, Jr. | Rodman & Renshaw, LLC | January 2, 2008\*

Cougar Biotechnology has assembled one of the most highly regarded and best-qualified scientific advisory boards in our sector. These world-class physician scientists guide us in our quest to develop breakthrough products — a quest that takes us into the laboratories of renowned life sciences companies, academic medical centers, university campuses and cancer research centers.

In the months to come, the potential of our energetic pipeline, along with our responsiveness to market need, will give Cougar Biotechnology the widest options for success. As always, each decision we make will be motivated by the best interests of our shareholders.

### **Cougar Biotechnology Scientific Advisory Board Members**

Arie S. Belldegrun, M.D., FACS  
Chairman, Scientific Advisory Board  
Cougar Biotechnology, Inc.  
Professor, Chief of Urologic Oncology,  
Roy and Carol Doumani Chair in  
Urologic Oncology, David Geffen School  
of Medicine at UCLA

John P. Leonard, M.D.  
The Richard T. Silver Distinguished  
Professor of Hematology and Medical  
Oncology, Professor of Medicine,  
Clinical Director, Center for Lymphoma  
and Myeloma, Weill Medical College of  
Cornell University

### **CB7630 Scientific Advisory Board**

Eric J. Small, M.D.  
Chairman of CB7630 Advisory Board  
Professor of Medicine and Urology, UCSF,  
Director, Investigational Therapeutics,  
UCSF Helen Diller Family Comprehensive  
Cancer Center, Interim Chief, Division  
of Hematology/Oncology, UCSF

Michael A. Carducci, M.D.  
Associate Professor of Oncology  
and Urology, Johns Hopkins  
Medical Institutions

Celestia S. Higano, M.D.  
Associate Professor, Departments of  
Oncology and Urology, University of  
Washington School of Medicine

Philip Kantoff, M.D.  
Director, The Lank Center for  
Genitourinary Oncology,  
Chief, Division of Solid Tumor Oncology,  
Dana-Farber Cancer Institute,  
Professor of Medicine, Harvard  
Medical School

Howard I. Scher, M.D.  
Chief, Genitourinary Oncology Service,  
D. Wayne Calloway Chair in Urologic  
Oncology, Memorial Sloan-Kettering  
Cancer Center

Matthew R. Smith, M.D., Ph.D.  
Director of Research, Genitourinary  
Unit of Oncology, Massachusetts  
General Hospital Cancer Center,  
Assistant Professor of Medicine,  
Harvard Medical School

Nicholas J. Vogelzang, M.D.  
Director, Nevada Cancer Institute,  
Executive Vice President for  
Academic Affairs

\* Please see required disclaimer on inside back cover.

## COMPANY LEADERSHIP

### Board of Directors

**Arie S. Beldegrun, M.D., FACS**

Vice Chairman, Board of Directors,  
Cougar Biotechnology, Inc.

**Alan H. Auerbach**

Chief Executive Officer and President,  
Cougar Biotechnology, Inc.

**Russell H. Ellison, M.D., M.Sc.**

Executive Vice President,  
Paramount BioSciences, LLC

**Thomas R. Malley**

Portfolio Manager (retired),  
Janus Capital Management, LLC

**Harold J. Meyers**

Senior Vice President,  
Wachovia Securities, LLC

**Michael S. Richman**

President and Chief Operating Officer,  
Amplimmune, Inc.

**Samuel R. Saks, M.D.**

Chief Executive Officer,  
Jazz Pharmaceuticals, Inc.

### Corporate Officers

**Alan H. Auerbach**

Chief Executive Officer and President

**Arturo Molina, M.D., MS, FACP**

Senior Vice President, Clinical  
Research and Development

**Richard B. Phillips, Ph.D.**

Senior Vice President, Regulatory  
Affairs and Quality Assurance

**Charles R. Eyler**

Vice President, Finance, and Treasurer

**Gloria T. Lee, M.D., Ph.D.**

Vice President, Clinical Research  
and Development

## STOCKHOLDER INFORMATION

### Corporate Headquarters

Cougar Biotechnology, Inc.  
10990 Wilshire Blvd., Suite 1200  
Los Angeles, CA 90024  
310.943.8040

### Investor Relations

Securities analysts and investment  
professionals should direct their  
inquiries to Investor Relations at  
310.943.8040 or  
[ir@cougarbiotechnology.com](mailto:ir@cougarbiotechnology.com).

For further information about Cougar,  
please visit our Web site at  
[www.cougarbiotechnology.com](http://www.cougarbiotechnology.com).

### Common Stock

Cougar's common stock is listed on  
the NASDAQ Global Market<sup>SM</sup> under  
the trading symbol "CGRB."

### Transfer Agent

Wells Fargo Shareowner Services<sup>SM</sup>  
**mail**  
P.O. Box 64874  
St. Paul, MN 55164-0874

### courier

161 North Concord Exchange  
South St. Paul, MN 55075  
800.468.9716  
651.450.4064  
[https://wellsfargo.com/com/  
shareowner\\_services](https://wellsfargo.com/com/shareowner_services)

### Annual Meeting

The annual meeting of stockholders  
will be held at 10:00 a.m. PDT  
on Tuesday, June 17, 2008, at  
Luxe Hotel Sunset Boulevard  
11461 Sunset Blvd.  
Los Angeles, CA 90049

### Independent Registered Public Accounting Firm

J.H. Cohn LLP  
4180 Ruffin Road, Suite 235  
San Diego, CA 92123

### Corporate Counsel

Maslon Edelman Borman & Brand, LLP  
3300 Wells Fargo Center  
90 South Seventh Street  
Minneapolis, MN 55402

## FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements for Cougar Biotechnology, Inc. that involve risks and uncertainties that could cause the Company's actual results to differ materially from the anticipated results and expectations expressed in these forward-looking statements. These statements are based on current expectations, forecasts and assumptions that are subject to risks and uncertainties, which could cause actual outcomes and results to differ materially from these statements. Among other things, there can be no assurance that any of the Company's development efforts relating to its product candidates will be successful, or such product candidates will be successfully commercialized. Other risks that affect forward-looking information contained in this document include the possibility of being unable to obtain regulatory approval of the Company's product candidates, the risk that the results of clinical trials may not support the Company's claims, and risks related to the Company's ability to protect its intellectual property and its reliance on third parties to develop its product candidates. The Company assumes no obligation to update these forward-looking statements, except as required by law.

## RODMAN & RENSHAW, LLC DISCLAIMER

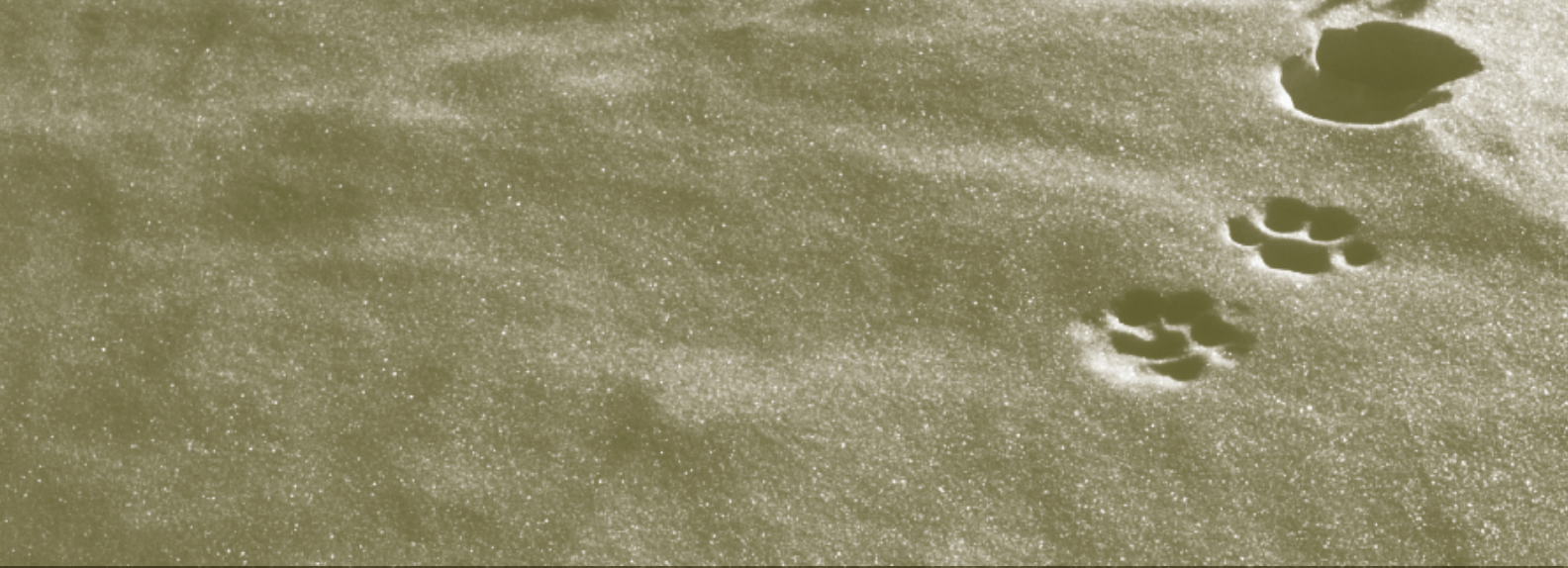
Neither the research analyst nor the research analyst's household has a financial interest in the companies mentioned (including, without limitation, any option, right, warrant, future, long or short position).

Neither the research analyst nor the Firm has any material conflict of interest with the companies mentioned, of which the research analyst knows or has reason to know at the time of this appearance.

Neither the research analyst nor any member of the research analyst's household nor the Firm serves as an officer, director or advisory board member of any of the companies mentioned.

Neither the Firm nor its affiliates beneficially own 1% or more of any class of common equity securities of the companies mentioned.

The Firm does make a market in the securities of the following companies:  
Cougar Biotechnology, Inc.



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