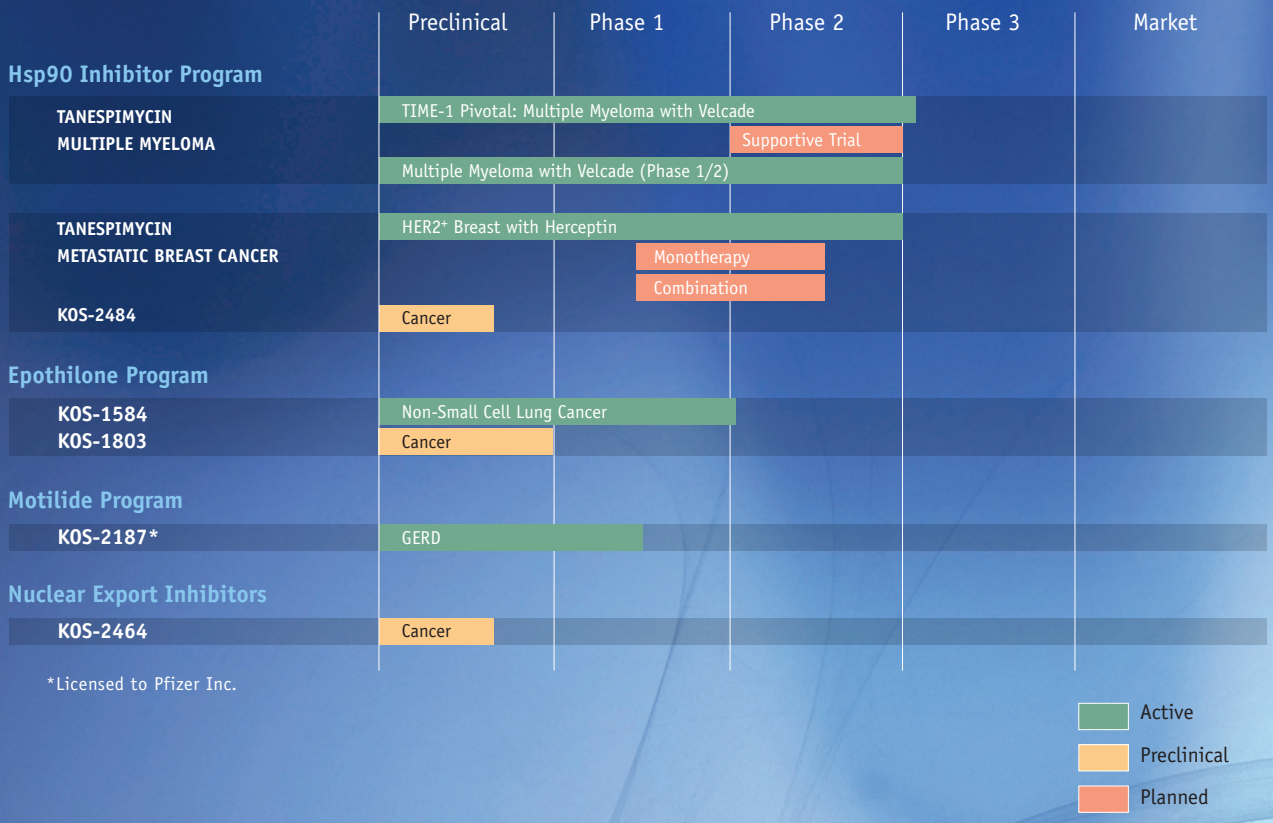
KOSAN
BIOSCIENCES

annual report 2007

pipeline



*Licensed to Pfizer Inc.

Fellow Stockholders:

2007 was an important year of maturation for Kosan during which our clinical programs in Hsp90 inhibitors and epothilones demonstrated proof of concept and our lead product candidate, tanespimycin, moved into a registration trial in multiple myeloma. In addition, we strengthened our clinical development and business functions to support Kosan's successful evolution into a product-focused, commercially oriented company. In this letter, I will describe the company's priorities, strategies and future directions, as well as our goals for 2008.

Kosan today is a lean, focused and directed organization. We are confident about our strategies and committed to realizing the potential of our lead clinical programs – our Hsp90 inhibitor tanespimycin and KOS-1584, our lead epothilone. Our resources, efforts and personnel are focused on advancing these promising product candidates along clearly defined clinical and regulatory paths, and on fulfilling their potential as the company's best opportunities for near-term commercial success.

Tanespimycin, our lead Hsp90 inhibitor, is the most advanced Hsp90 inhibitor in development and has the potential to be the first in its class to reach the market. We are currently developing tanespimycin in multiple myeloma and in metastatic breast cancer.

Kosan's Senior Management Team (left to right): Peter J. Licari, Ph.D., *Senior Vice President, Manufacturing*; Jane M. Green, Ph.D., *Vice President, Corporate Communications;* Jonathan K. Wright, J.D., *Senior Vice President, General Counsel and Secretary;* Helen S. Kim, *President and Chief Executive Officer;* Pieter B.M.W.M. Timmermans, Ph.D., *Senior Vice President, Drug Discovery and Preclinical Development;* Gary S. Titus, C.P.A., *Senior Vice President and Chief Financial Officer;* J. Michael Sherrill, M.S., *Vice President, Project and Alliance Management.* Not pictured: Albert L. Kraus, Ph.D., *Vice President, Regulatory Affairs and Development;* Gary W. Ashley, Ph.D., *Vice President, Exploratory Research and Kosan Fellow.*

Tanespimycin TIME Registration Program Our pivotal Phase 3 Tanespimycin in Myeloma Evaluation or TIME-1 trial is the foundation of our registration strategy in multiple myeloma. Initiated in the beginning of 2008, TIME-1 is an open-label, randomized, multi-center, international trial in patients with first-relapse disease. TIME-1 is designed with a primary endpoint of progression-free survival (PFS) and is designed to show a 2.75 month PFS benefit in patients treated with tanespimycin plus Velcade® (bortezomib) compared to patients treated with Velcade alone. We believe that this endpoint is both achievable and clinically meaningful. Kosan has completed both a Special Protocol Assessment with the U.S. Food and Drug Administration and a Scientific Advice process with the Committee for Medicinal Products for Human Use of the Centralized European Medicines Agency.

Our TIME program will also include a supportive study to evaluate the efficacy and safety of tanespimycin in myeloma patients. We expect to initiate the supportive trial in early 2009 and are currently finalizing the protocol design for this study. We anticipate that the supportive study can be completed within the timeframe of TIME-1.

In multiple myeloma, we are positioning tanespimycin to potentially capture a significant share of the second-line market. Combination therapy is standard of care in multiple myeloma, and tanespimycin is positioned to complement, not replace, current and future therapies. Our initial development strategy is to combine tanespimycin with Velcade, capitalizing on tanespimycin's potential to act additively or synergistically with Velcade and, potentially, with other therapies. As more therapies move into the front-line myeloma setting, we expect that there will be a need for new treatments in the second-line setting. We believe that tanespimycin has the potential to assume a strong position in this market niche with additional potential to move to a front-line setting.

Tanespimycin in Metastatic Breast Cancer We intend to advance tanespimycin in metastatic breast cancer. Tanespimycin has demonstrated encouraging, potent antitumor activity and clinical benefit and has been well-tolerated in combination with Herceptin® (trastuzumab) in patients with HER2-positive metastatic breast cancer. Data reported in December 2007 from an ongoing Phase 2 trial of tanespimycin plus Herceptin showed a 55% clinical benefit rate in patients who had failed trastuzumab therapy prior to entering the trial, including 5 partial responses in 20 evaluable patients. Updated data from this ongoing Phase 2 trial show additional partial responses among patients treated with our novel injectable suspension formulation of tanespimycin, supporting Kosan's strategy to advance tanespimycin into later-stage trials.

Metastatic breast cancer is a complex and evolving treatment paradigm, with many new combinations and therapies entering the field. We are designing our development strategy with the goal of determining a registration pathway in this indication. Beginning later in 2008, we expect to initiate enabling studies to explore tanespimycin as monotherapy and in combination with other agents.

We believe that our Hsp90 program, led by tanespimycin, is a highly valuable oncology asset. We have demonstrated clinical proof of concept, with impressive activity, durable responses in multiple indications and tolerability in a large safety database. We have demonstrated activity in both hematologic and solid tumors and excellent combination potential in patients with refractory disease. The indications we are pursuing with tanespimycin represent large commercial opportunities for Kosan, and there is potential to pursue additional indications. Our Hsp90 inhibitor program also represents an important and valuable opportunity for partnering.

KOS-1584: Potential Epothilone Market Competitor We believe that KOS-1584 has the potential to assume a leading role in the emerging epothilone class of anticancer agents. Epothilones are highly potent microtubulin stabilizing compounds with a similar mechanism of action to taxanes and broad applicability in a wide range of tumors. Epothilones are active in both taxane-sensitive and taxane-resistant cancers and have demonstrated low susceptibility to tumor resistance mechanisms. With the recent regulatory approval of the first epothilone, the epothilone class has gained clinical and market validation.

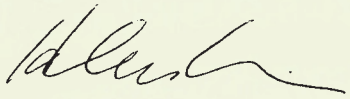
We believe that KOS-1584 has potential to compete in the emerging epothilone market, based on its demonstrated antitumor activity and favorable tolerability in Phase 1 studies in patients with solid tumors. We believe that KOS-1584 may have a competitive tolerability profile with other epothilones in this class, which could translate into a meaningful market advantage. In early 2008, we initiated our first Phase 2 KOS-1584 study in non-small cell lung cancer patients who have received one prior course of therapy. In addition, we may pursue development of KOS-1584 in a second indication for which it has shown potential, such as ovarian, pancreatic, gastric, prostate or breast cancer. KOS-1584 is an important component of our development portfolio and represents a valuable asset for partnering.

Outlook for 2008 We believe that 2008 will be a year of focused execution for Kosan, driven by advances in our TIME registration program, our tanespimycin metastatic breast cancer program and our KOS-1584 Phase 2 program. These development programs are our company's most valuable assets and highest priorities, and we are committed to pursuing a clear path forward for them. We are equally committed to ensuring effective and efficient use of our resources and believe that focusing our efforts on these later-stage development programs will bring the greatest benefit to Kosan and our stockholders in the near term and strengthen our company's long-term prospects. Our motilin agonist, KOS-2187, licensed to Pfizer, continues to make progress in Phase 1 trials, and we anticipate Pfizer's continued interest in developing this compound in gastroesophageal reflux disease and potentially other gastrointestinal disorders. In addition, our earlier-stage programs in Hsp90 inhibitors, epothilones and nuclear export inhibitors represent valuable partnering opportunities for Kosan that we intend to pursue.

We have entered 2008 with renewed focus, resolve and confidence in our ability to successfully transform these product candidates into meaningful commercial opportunities for our company. We believe that Kosan has significant potential to build leading positions in Hsp90 inhibitors and in epothilones, and we are committed to pursuing these opportunities.

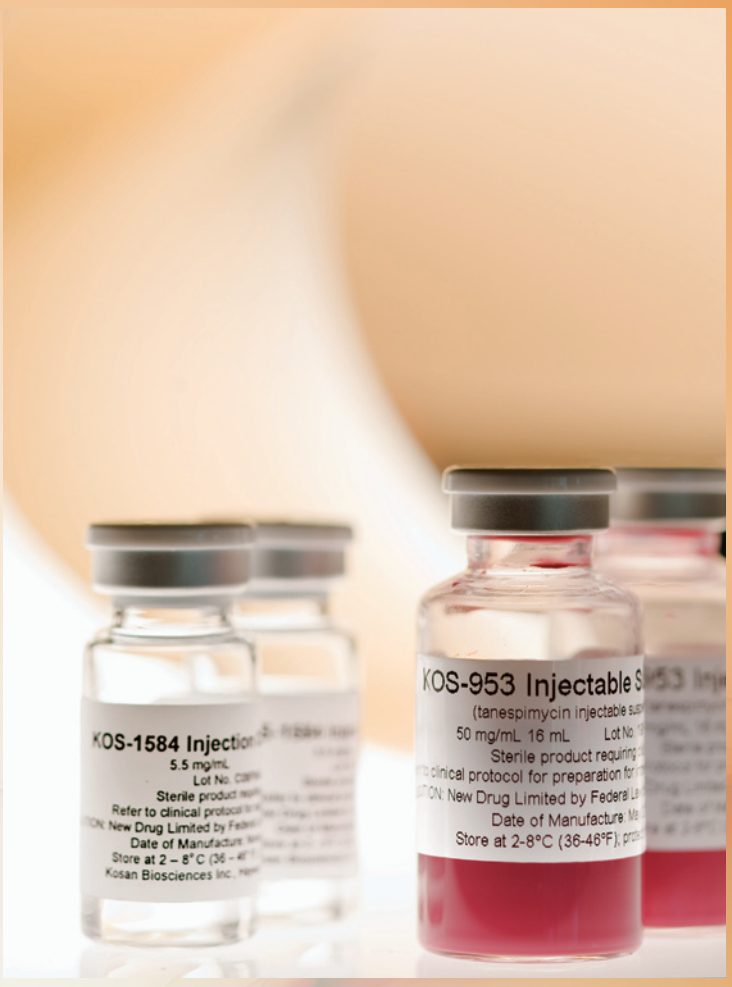
Kosan's Board of Directors, management team and employees join me in expressing our deep appreciation to you, our stockholders, for your continued interest in our company.

Kosan Biosciences Incorporated



Helen S. Kim
President and Chief Executive Officer

April 28, 2008



Kosan's resources, efforts and personnel are focused on advancing our most promising product candidates – tanespimycin in multiple myeloma and in breast cancer and KOS-1584 in non-small cell lung cancer – along clearly defined clinical and regulatory paths, and on fulfilling their potential as the company's best opportunities for near-term commercial success.

KOSAN
BIOSCIENCES

DIRECTORS

Peter Davis, Ph.D.
Chairman
Independent Consultant

Bruce A. Chabner, M.D.
Chief, Division of Hematology/Oncology,
Massachusetts General Hospital
Professor of Medicine
Harvard Medical School

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Former Executive Vice President
Business Director
Hoffmann-La Roche Inc.

Jean Deleage, Ph.D.
Managing Director
Alta Partners

Charles Homcy, M.D.
Chief Executive Officer
Portola Pharmaceuticals, Inc.

Chaitan S. Khosla, Ph.D.
Co-founder
Kosan Biosciences Incorporated
Professor, Stanford University

Christopher Walsh, Ph.D.
Hamilton Kuhn Professor
Harvard Medical School

EXECUTIVE MANAGEMENT

Helen S. Kim
President and Chief Executive Officer

Peter J. Licari, Ph.D.
Senior Vice President
Manufacturing and Operations

Pieter B.M.W.M. Timmermans, Ph.D.
Senior Vice President
Drug Discovery and
Preclinical Development

Gary S. Titus, C.P.A.
Senior Vice President and
Chief Financial Officer

Jonathan K. Wright, J.D.
Senior Vice President
General Counsel and Secretary

Gary W. Ashley, Ph.D.
Vice President, Exploratory
Research and Kosan Fellow

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Jane M. Green, Ph.D.
Vice President
Corporate Communications

Albert L. Kraus, Ph.D.
Vice President
Regulatory Affairs and Development

J. Michael Sherrill, M.S.
Vice President
Project and Alliance Management

REGISTRAR AND TRANSFER AGENT

BNY Mellon Shareowner Services
P.O. Box 358015
Pittsburgh, PA 15252-8015
1.877.265.2619
www.bnymellon.com/shareowner/isd

ANNUAL STOCKHOLDERS MEETING

The annual meeting of stockholders will be held at 10:00 a.m., local time, on May 22, 2008 at:

Kosan Biosciences
3825 Bay Center Place
Hayward, CA 94545

INVESTOR INFORMATION

Copies of Kosan's Annual Report and Form 10-K and Form 10-Q reports can be obtained at no cost by calling or writing to Investor Relations at Kosan's headquarters or visiting its website at www.kosan.com.

CORPORATE HEADQUARTERS

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STOCK EXCHANGE

Kosan is traded on The Nasdaq National Market. The ticker symbol is KOSN.

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Palo Alto, CA 94306

INDEPENDENT AUDITORS

Ernst & Young LLP
San Francisco, CA

This annual report contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 (the "Act"). Such forward-looking statements include but are not limited to statements regarding the further development and potential safety, efficacy, regulatory status, commercial potential and other characteristics of Kosan's product candidates; the continuation of current clinical trials; the initiation of additional clinical trials and the timing thereof. Any statements contained in this report that are not statements of historical fact may be deemed to be forward-looking statements. There are a number of important factors that could cause the results of Kosan to differ materially from those indicated by these forward-looking statements, including, among others, the uncertain progress and results of Kosan's preclinical and clinical testing, including the risks that studies and trials may not demonstrate safety and efficacy sufficient to initiate clinical trials on the timing currently anticipated, or at all, continue clinical development, obtain the requisite regulatory approvals or result in a marketable product; the conduct of clinical trials; manufacturing; regulatory approval requirements and process; the effort and expense necessary for further development of Kosan's product candidates, including the costs of bortezomib; intellectual property matters, including Kosan's ability to obtain valid and enforceable patents covering its product candidates; Kosan's dependence on its collaboration with Pfizer for development of its motilin agonist product candidate; Kosan's need for additional financing and Kosan's strategy to enter into partnering or licensing arrangements; Kosan's need to retain skilled employees and consultants and other risks detailed from time to time in the Company's S.E.C. reports, including its Annual Report on Form 10-K for the year ended December 31, 2007 and other periodic filings with the S.E.C. Kosan does not undertake any obligation to update forward-looking statements.

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