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Sunesis Pharmaceuticals Reports First Quarter 2011 Financial Results

SOUTH SAN FRANCISCO, Calif., May 12, 2011 – Sunesis Pharmaceuticals, Inc. (NASDAQ: SNSS) today reported financial results for the quarter ended March 31, 2011. Net income for the three months ended March 31, 2011 was $1.8 million. As of March 31, 2011, cash, cash equivalents and marketable securities totaled $48.9 million, with no debt outstanding. This cash balance does not include $4.0 million received on April 4, 2011 under Sunesis' previously disclosed oncology kinase inhibitor collaboration with Millennium Pharmaceuticals, Inc.

The Company also announced that an abstract reviewing the adaptive design of the VALOR trial has been accepted for presentation during a poster session at the 2011 American Society of Clinical Oncology (ASCO) Annual Meeting, which is being held June 3-7 in Chicago, Illinois.

"Since the beginning of the year, we have achieved a number of milestones that enhance the prospects for vosaroxin, our lead program, as well as our earlier-stage pipeline programs," said Daniel Swisher, Chief Executive Officer of Sunesis. "For vosaroxin, we made progress on the clinical, regulatory and intellectual property fronts: the roll-out of our Phase 3 pivotal VALOR trial in relapsed/refractory AML is progressing well, we received U.S. FDA Fast Track designation for vosaroxin in AML and an important European patent has issued. Beyond vosaroxin, our newly formed oncology kinase inhibitor collaboration with Millennium Pharmaceuticals highlights the significant potential of our pipeline programs, including a pan-Raf kinase inhibitor candidate set for Phase 1 development. This collaboration will ensure these programs are supported with the capabilities and resources of a leading global oncology company while we continue to focus our internal investment on vosaroxin and the ongoing VALOR trial."

First Quarter 2011 and Recent Highlights

-- ***Announced collaboration with Millennium Pharmaceuticals for kinase inhibitors in oncology.*** In April, Millennium Pharmaceuticals, Inc. (Millennium), a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited, and Sunesis announced a license agreement for the development of Sunesis' oral, selective pan-Raf kinase inhibitor and one additional undisclosed kinase inhibitor program in oncology. Under terms of the agreement, Sunesis received a $4.0 million upfront payment from Millennium on April 4, 2011 and is eligible to receive up to approximately $60.0 million in pre-commercial milestone program payments and royalties on sales of future collaboration products. Sunesis also retains co-development and co-promotion rights.

The programs were originally part of Sunesis' 2004 multi-kinase inhibitor collaboration with Biogen Idec, Inc. Following Biogen Idec's November 2010 announcement to shift its strategic focus and spin out or outlicense its oncology assets, Millennium acquired two of these oncology assets and intends to continue the development of these in collaboration with Sunesis. Biogen Idec and Sunesis will continue with a more focused collaboration directed towards a unique preclinical kinase inhibitor program involved in immunology.

-- ***Issued important European patent covering vosaroxin clinical formulation.*** In March, the European Patent Office (EPO) granted European Patent No. 1725233, which claims pharmaceutical compositions of vosaroxin. A corresponding patent was issued by the U.S. Patent and Trademark Office in November 2010, and related applications are also pending in other major markets throughout the world, including Japan, Australia and Canada. Sunesis is proceeding to validate this patent in several member states and the resulting national patents would expire in March 2025. The company believes this patent, which covers the formulation currently being used in the VALOR trial, may provide a significant additional exclusivity period for its vosaroxin franchise.

-- ***Received FDA Fast Track designation.*** In February, the U.S. Food and Drug Administration (FDA) granted its Fast Track designation to vosaroxin for the potential treatment of relapsed or refractory AML in combination with cytarabine. This designation provides for the possibility of a "rolling submission," or submission of individual sections as they become available, for a marketing application and eligibility for a priority review period by the FDA.

Financial Highlights

-- Cash, cash equivalents and marketable securities totaled $48.9 million as of March 31, 2011, as compared to $53.4 million as of December 31, 2010. The decrease of $4.5 million was primarily due to $6.7 million of net cash used in operating activities, partially offset by net proceeds of $2.1 million from sales of Sunesis' common stock through its facility with Cantor Fitzgerald & Co. In April 2011, Sunesis received a $4.0 million payment from Millennium per the terms of the license agreement entered into by Sunesis and Millennium on March 31, 2011. The company believes that currently available and accessible funds are sufficient to fund the company to the planned unblinding of the VALOR trial.

-- Total revenues for the three months ended March 31, 2011 were $4.0 million, as compared to $13,000 for the same period in 2010. Revenue in the 2011 period was related to the upfront payment of $4.0 million from Millennium.

-- Research and development expenses increased to $4.1 million for the three months ended March 31, 2011, as compared to $3.1 million for the same period in 2010. The increase in 2011 was primarily due to an increase in clinical expenses incurred as a result of the launch of the VALOR trial.

-- General and administrative expenses for the three months ended March 31, 2011 were $2.0 million, as compared to $1.6 million for the same period in 2010. The increase in 2011 was primarily due to higher legal and marketing costs, including legal costs related to the recently completed agreements with Biogen Idec and Millennium, and marketing costs related to the VALOR trial.

-- Other income, net, was $3.9 million for the three months ended March 31, 2011 as compared to $4,000 for the same period in 2010. The income in the 2011 period was comprised of a non-cash credit of $3.6 million for the revaluation of warrants issued in the October 2010 offering to their fair value as of March 31, 2011, and net foreign exchange gains of $0.3 million.

-- Sunesis reported net income of $1.8 million for the three months ended March 31, 2011 as compared to a net loss of $4.6 million for the same period in 2010.

ASCO Presentation

The Company will present the poster titled “Adaptive design of VALOR, a phase III trial of vosaroxin or placebo in combination with cytarabine for patients with first relapsed or refractory acute myeloid leukemia” at McCormick Place, Hall A, during the Trials in Progress Poster Session on Monday, June 6, 2011 from 8:00 a.m. to 12:00 p.m. local time (Poster #48G).

About VALOR

VALOR is a Phase 3, randomized, double-blind, placebo-controlled, pivotal trial in patients with first relapsed or refractory AML. The trial is expected to enroll 450 evaluable patients at approximately 100 leading sites in the U.S., Canada, Europe, Australia and New Zealand. The VALOR trial is currently open for enrollment and patients will be randomized one to one to receive either vosaroxin on days one and four in combination with cytarabine daily for five days, or placebo in combination with cytarabine. Additionally, the VALOR trial employs an innovative, adaptive trial design that allows for a one-time sample size adjustment by the DSMB at the interim analysis to maintain adequate power across a broad range of clinically meaningful and statistically significant survival outcomes. The trial's primary endpoint is overall survival. For more information on the VALOR trial, please visit www.valortrial.com.

About Vosaroxin

Vosaroxin is a first-in-class anticancer quinolone derivative, or AQD, a class of compounds that has not been used previously for the treatment of cancer. Vosaroxin both intercalates DNA and inhibits topoisomerase II, resulting in replication-dependent, site-selective DNA damage, G2 arrest and apoptosis.

About Acute Myeloid Leukemia

AML is a rapidly progressing cancer of the blood characterized by the uncontrolled proliferation of immature blast cells in the bone marrow. The American Cancer Society estimated that 12,330 cases of AML were diagnosed and approximately 9,000 deaths from AML occured in the U.S. in 2010. Additionally, it is estimated that prevalence of AML is approximately 25,000 in the U.S. AML is generally a disease of older adults, and the median age of a patient diagnosed with AML is about 67 years. AML patients with relapsed or refractory disease and newly diagnosed AML patients over 60 years of age with poor prognostic risk factors typically die within one year, resulting in an acute need for new treatment options for these patients.

About Sunesis Pharmaceuticals

Sunesis is a biopharmaceutical company focused on the development and commercialization of new oncology therapeutics for the treatment of solid and hematologic cancers. Sunesis has built

a highly experienced cancer drug development organization committed to advancing its lead product candidate, vosaroxin, in multiple indications to improve the lives of people with cancer. For additional information on Sunesis, please visit www.sunesis.com.

This press release contains forward-looking statements, including statements related to the design, conduct and results of the VALOR trial, the benefits to Sunesis from its collaboration arrangement with Millennium, the prosecution of pending foreign patent applications, the sufficiency of Sunesis' currently available and accessible funds, and vosaroxin's effects, efficacy and safety profile as a single agent and in combination with cytarabine. Words such as "progressing," "will," "pending," "proceeding," "intends to," "expected," "believe" and similar expressions are intended to identify forward-looking statements. These forward-looking statements are based upon Sunesis' current expectations. Forward-looking statements involve risks and uncertainties. Sunesis' actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, risks related to Sunesis' need for substantial additional funding to complete the development and commercialization of vosaroxin, risks related to Sunesis' ability to raise the capital that it believes to be accessible and is required to fully finance the VALOR trial until its planned unblinding in 2013, the risk that Sunesis' development activities for vosaroxin could be otherwise halted or significantly delayed for various reasons, the risk that Sunesis' clinical studies for vosaroxin may not demonstrate safety or efficacy or lead to regulatory approval, the risk that data to date and trends may not be predictive of future data or results, the risk that Sunesis' nonclinical studies and clinical studies may not satisfy the requirements of the FDA or other regulatory agencies, risks related to the conduct of Sunesis' clinical trials, risks related to the manufacturing of vosaroxin and supply of the active pharmaceutical ingredients required for the conduct of the VALOR trial, the risk of third party opposition to granted patents related to vosaroxin, and the risk that Sunesis' proprietary rights may not adequately protect vosaroxin. These and other risk factors are discussed under "Risk Factors" and elsewhere in Sunesis' Annual Report on Form 10-K for the year ended December 31, 2010 and Sunesis' other filings with the Securities and Exchange Commission, including Sunesis' Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, when available. Sunesis expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based.

SUNESIS PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands)

	March 31, 2011 (Unaudited)	December 31, 2010 (Note 1)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 9,914	$ 14,223
Marketable securities	39,002	39,173
Accounts receivable	4,000	-
Prepaids and other current assets	1,595	1,286
Total current assets	54,511	54,682
Property and equipment, net	106	116
Deposits and other assets	60	60
Total assets	$ 54,677	$ 54,858
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 616	$ 416
Accrued clinical expense	1,599	1,574
Accrued compensation	493	1,013
Other accrued liabilities	990	1,406
Warrant liability	4,539	8,154
Total current liabilities	8,237	12,563
Other liabilities	40	48
Commitments		
Stockholders' equity:		
Common stock	5	5
Additional paid-in capital	425,563	423,262
Accumulated other comprehensive loss	(3)	(15)
Accumulated deficit	(379,165)	(381,005)
Total stockholders' equity	46,400	42,247
Total liabilities and stockholders' equity	$ 54,677	$ 54,858

Note 1: The condensed consolidated balance sheet as of December 31, 2010 has been derived from the audited financial statements as of that date included in the Company's Annual Report on Form 10-K for the year ended December 31, 2010.

SUNESIS PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Three months ended March 31,	
	2011	**2010**
	(Unaudited)	
Revenue:		
Collaboration revenue	$ -	$ 13
License and other revenue	4,000	-
Total revenues	4,000	13
Operating expenses:		
Research and development	4,070	3,111
General and administrative	2,014	1,554
Total operating expenses	6,084	4,665
Loss from operations	(2,084)	(4,652)
Other income, net	3,924	4
Net income (loss)	$ 1,840	$ (4,648)
Net income (loss) per common share:		
Basic	$ 0.04	$ (0.65)
Diluted	$ 0.04	$ (0.65)
Shares used in computing net income (loss) per common share:		
Basic	45,894	7,142
Diluted	47,866	7,142