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Sunesis Pharmaceuticals Reports Fourth Quarter and Full-Year 2010 Financial Results

SOUTH SAN FRANCISCO, Calif., March 29, 2011 – Sunesis Pharmaceuticals, Inc. (NASDAQ: SNSS) today reported financial results for the fourth quarter and year ended December 31, 2010. Net loss for the three months and year ended December 31, 2010 was $10.1 million and $24.6 million, respectively. As of December 31, 2010, cash, cash equivalents and marketable securities totaled $53.4 million, with no debt outstanding.

"This past year was a landmark year for Sunesis, with our lead program, vosaroxin, moving into a pivotal Phase 3 trial, the VALOR trial, in acute myeloid leukemia," said Daniel Swisher, Chief Executive Officer of Sunesis. "Since the beginning of the fourth quarter, we achieved a number of critical clinical, regulatory, intellectual property and financial objectives, including the launch of the VALOR trial. I am pleased with the pace of site activation and patient enrollment to date. With an improved capital structure and over $53 million in cash at the end of 2010, Sunesis is today well positioned to reach our goal of bringing an important new cancer treatment to patients with an enduring unmet need."

Fourth Quarter 2010 and Recent Highlights

-- ***Launched Phase 3 VALOR trial of vosaroxin in AML.*** In December 2010, Sunesis commenced enrollment in its VALOR trial, a Phase 3, randomized, double-blind, placebo-controlled, pivotal trial of vosaroxin in combination with cytarabine, a widely used chemotherapy, in patients with relapsed or refractory acute myeloid leukemia (AML). The trial is expected to enroll 450 patients at approximately 100 leading sites in the United States, Canada, Europe, Australia and New Zealand.

-- ***Granted FDA fast track designation.*** In February 2011, the FDA granted fast track designation to vosaroxin for the potential treatment of relapsed or refractory AML in combination with cytarabine, providing for the possibility of a "rolling submission" for a marketing application and eligibility for a priority review period by the FDA.

-- ***Issued important U.S. and European patents covering vosaroxin clinical formulation.*** In November 2010, Sunesis announced that the United States Patent and Trademark Office (USPTO) had granted U.S. Patent No. 7,829,577, claiming Sunesis' pharmaceutical compositions of vosaroxin. The patent is scheduled to expire in March 2025, and could be

eligible for patent term extension beyond this date. Earlier this March, the European Patent Office (EPO) granted European Patent No. 1725233 covering similar claims as described above. Corresponding patent applications are also pending in other major markets throughout the world, including Japan, Australia and Canada.

-- ***Presented positive Phase 2 data for vosaroxin in AML.*** In November 2010, Robert Stuart, MD, Professor of Medicine, Division of Hematology/Oncology, Department of Medicine, Medical University of South Carolina, presented data from Phase 2 clinical trials of vosaroxin in combination with cytarabine in relapsed/refractory AML and as a single agent in frontline elderly AML at the Chemotherapy Foundation Symposium XXVIII. Consistent with results presented at the American Society of Clinical Oncology Annual Meeting in June 2010, vosaroxin achieved clinically meaningful complete remission rates balanced with low all-cause early mortality. Preliminary leukemia-free survival, measured as time from complete remission to relapse or death, was 14.4 months (440 days). Median overall survival was 7.1 months, with 14 patients continuing in survival follow up well beyond this median.

Financial Highlights

-- Cash, cash equivalents and marketable securities totaled $53.4 million as of December 31, 2010, as compared to $4.3 million as of December 31, 2009.

-- Revenues for the three months and year ended December 31, 2010 were $6,000 and $33,000, as compared to $12,500 and $3.8 million for the same periods in 2009.

-- Research and development expenses increased to $4.9 million and $14.4 million for the three months and year ended December 31, 2010, as compared to $2.2 million and $13.2 million for the same periods in 2009. The increases were primarily due to the launch of the VALOR trial.

-- General and administrative expenses for the three months and year ended December 31, 2010 were $1.8 million and $7.0 million, as compared to $1.9 million and $7.7 million for the same periods in 2009.

-- Sunesis reported net losses of $10.1 million and $24.6 million for the three months and year ended December 31, 2010, as compared to $4.0 million and $40.2 million for the same periods in 2009. Net loss in each of the periods in 2010 reflect a non-cash charge of $3.7 million for the revaluation of warrants issued as part of the underwritten offering in October 2010 to their fair value as of December 31, 2010. Net loss for 2009 included non-cash charges of $21.0 million related to the accounting for the private placement of Sunesis' securities in 2009.

-- Cash used in operations was $4.2 million and $19.4 million for the three months and year ended December 31, 2010, as compared to $4.3 million and $20.2 million for the same periods in 2009.

-- In October 2010, Sunesis completed an underwritten offering of its common stock and warrants to purchase its common stock for net proceeds of $14.2 million, and during the fourth quarter of 2010, raised net proceeds of $3.1 million through its controlled equity offering facility with Cantor Fitzgerald & Co.

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 (Formerly Voreloxin)

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 new cases of AML will be diagnosed and approximately 9,000 deaths from AML will occur 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 sufficiency of Sunesis' cash resources, the design, conduct and results of the VALOR trial, the prosecution of patent applications with the EPO and vosaroxin's effects, efficacy and safety profile as a single agent and in combination with cytarabine. Words such as "well positioned," "expected," "to date," "could," "pending" 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 results 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' Quarterly Report on Form 10-Q for the quarter ended September 30, 2010 and Sunesis' other filings with the Securities and Exchange Commission, including Sunesis' Annual Report on Form 10-K for the year ended December 31, 2010 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.
CONSOLIDATED BALANCE SHEETS

	December 31, 2010	December 31, 2009
ASSETS	(Unaudited)	(Note 1)
Current assets:		
Cash and cash equivalents	$ 14,223,388	$ 4,258,715
Marketable securities	39,172,480	-
Prepaids and other current assets	1,285,487	583,030
Total current assets	54,681,355	4,841,745
Property and equipment, net	116,188	263,111
Deposits and other assets	59,974	64,425
Total assets	$ 54,857,517	$ 5,169,281
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 415,802	$ 360,300
Accrued clinical expense	1,573,580	1,129,226
Accrued compensation	1,013,240	728,744
Other accrued liabilities	1,380,409	788,559
Current portion of deferred rent	26,267	27,943
Warrant liability	8,153,712	-
Total current liabilities	12,563,010	3,034,772
Non-current portion of deferred rent	47,838	74,105
Commitments		
Stockholders' equity:		
Convertible preferred stock	-	60,004,986
Common stock	4,537	3,590
Additional paid-in capital	423,262,099	298,469,584
Accumulated other comprehensive loss	(14,726)	-
Accumulated deficit	(381,005,241)	(356,417,756)
Total stockholders' equity	42,246,669	2,060,404
Total liabilities and stockholders' equity	$ 54,857,517	$ 5,169,281

Note 1: The consolidated balance sheet as of December 31, 2009 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, 2009.

SUNESIS PHARMACEUTICALS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Three months ended December 31,		Year ended December 31,	
	2010	2009	2010	2009
	(Unaudited)		(Unaudited)	(Note 2)
Revenue:				
Collaboration revenue	$ -	$ 12,500	$ 27,083	$ 1,550,000
License and other revenue	6,000	-	6,000	2,211,547
Total revenues	6,000	12,500	33,083	3,761,547
Operating expenses:				
Research and development	4,874,007	2,178,045	14,433,777	13,246,859
General and administrative	1,785,201	1,864,960	7,004,909	7,748,243
Restructuring charges	-	(18,451)	-	1,915,316
Total operating expenses	6,659,208	4,024,554	21,438,686	22,910,418
Loss from operations	(6,653,208)	(4,012,054)	(21,405,603)	(19,148,871)
Other income (expense), net	(3,418,614)	(23,018)	(3,181,882)	(21,077,175)
Net loss	(10,071,822)	(4,035,072)	(24,587,485)	(40,226,046)
Deemed distribution to preferred stockholders	-	(1,188,400)	-	(27,563,400)
Loss attributable to common stockholders	$ (10,071,822)	$ (5,223,472)	$ (24,587,485)	$ (67,789,446)
Basic and diluted loss attributable to common stockholders per common share	$ (0.23)	$ (0.90)	$ (0.99)	$ (11.80)
Shares used in computing basic and diluted loss attributable to common stockholders per common share	43,879,448	5,779,792	24,860,212	5,746,786

Note 2: The consolidated statement of operations for the year ended December 31, 2009 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, 2009.