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Sunesis Pharmaceuticals Reports Second Quarter 2012 Financial Results and Highlights

Sunesis to Host Conference Call Today at 10:30AM Eastern Time

SOUTH SAN FRANCISCO, Calif., (August 9, 2012) – Sunesis Pharmaceuticals, Inc. (NASDAQ: SNSS) today reported financial results for the quarter ended June 30, 2012. Net loss for the three and six months ended June 30, 2012 was $8.6 million and $22.5 million, respectively. As of June 30, 2012, cash, cash equivalents and marketable securities totaled $29.3 million.

"Next month, the independent Data and Safety Monitoring Board will conduct, in its single pre-planned interim analysis, the first efficacy review of the Phase 3 VALOR trial in acute myeloid leukemia," said Daniel Swisher, Chief Executive Officer of Sunesis. "The DSMB will examine pre-specified unblinded efficacy and safety data sets and decide whether to stop the study early for efficacy or futility, continue the study as planned or implement a one-time sample size adjustment of 225 additional evaluable patients. This important milestone will determine timing of the final outcome of this pivotal study and enable our plans for future regulatory filings and commercialization of vosaroxin."

Mr. Swisher added: "I continue to be pleased with the execution of the VALOR trial. The trial has now enrolled 391 patients, a figure that reflects broad investigator support across our more than 110 clinical sites, and underlines vosaroxin's potential to change the standard of care in this disease. We have also seen progress in our kinase inhibitor collaborations during the quarter. These collaborations allow us to leverage the resources of two leading biopharmaceutical companies, Biogen Idec and Millennium Pharmaceuticals, to advance a broader product pipeline while we focus our resources on vosaroxin and the VALOR trial."

Second Quarter 2012 and Recent Highlights

- ***Continued strong execution of VALOR trial.*** Enrollment and execution in the VALOR trial continues to be strong, with 391 patients enrolled as of yesterday, which remains on track for the conduct of the interim efficacy and safety analysis in September.

- ***Announced DSMB Recommendation to Continue VALOR Trial Based on Safety Review.*** In June, Sunesis announced that the independent Data and Safety Monitoring Board (DSMB) for the VALOR trial completed a planned periodic safety review and recommended that the trial continue as planned without changes to study conduct.

- ***Received $1.5 Million Payment From Biogen Idec Related to Kinase Inhibitor Program.*** In June, Sunesis received a $1.5 million payment from Biogen Idec for the advancement of pre-clinical work under its 2011 amended and restated multi-kinase inhibitor collaboration agreement.

- ***Received orphan drug designation by European Commission.*** In April, the European Commission granted orphan drug designation to vosaroxin for the treatment of acute myeloid leukemia (AML). The designation provides for 10 years of marketing exclusivity subsequent to product approval in Europe. Vosaroxin has previously received orphan drug and fast track designations from the U.S. Food and Drug Administration (FDA)**.**

- ***VALOR design poster presented at ASCO 2012.*** In June, Sunesis presented a poster titled "VALOR, an adaptive design, pivotal phase III trial of vosaroxin or placebo in combination with cytarabine in first relapsed or refractory acute myeloid leukemia" at the 2012 American Society of Clinical Oncology Annual Meeting in Chicago.

- ***MLN2480, pan-RAF inhibitor, featured in "New Drugs on the Horizon" at AACR 2012.*** In April, Millennium Pharmaceuticals, Inc. presented preclinical data on MLN2480 at the 2012 American Association of Cancer Research Annual Meeting in Chicago. The data suggest that MLN2480 has therapeutic anti-cancer activity in both B-Raf mutant and wild-type melanoma tumor models.

Financial Highlights

- Cash, cash equivalents and marketable securities totaled $29.3 million as of June 30, 2012, as compared to $44.1 million as of December 31, 2011.

- Total revenue was $1.5 million for the three and six months ended June 30, 2012, as compared to nil and $4.0 million for the same periods in 2011. Revenue in the 2012 periods was due to the receipt of a payment of $1.5 million in June 2012 for the advancement of pre-clinical work under the company's 2011 amended and restated multi-kinase inhibitor collaboration agreement with Biogen Idec. Revenue in the 2011 six-month period was due to an upfront payment of $4.0 million from Millennium Pharmaceuticals, Inc., as part of the assignment of licenses for two oncology programs to it in March 2011.

- Research and development expenses increased to $8.1 million and $14.7 million for the three and six months ended June 30, 2012, as compared to $6.0 million and $10.0 million for the same periods in 2011. The increases in 2012 were primarily due to an increase in clinical and other expenses related to the VALOR trial.

- General and administrative expenses for the three and six months ended June 30, 2012 were $2.2 million and $4.4 million, as compared to $2.0 million and $4.0 million for the same periods in 2011. The increases between the periods were primarily due to higher non-cash stock-based compensation expenses.

- Other expense, net, was $4.3 million for the six months ended June 30, 2012, as compared to net other income of $3.6 million for the same period in 2011. Net other expense for the 2012 period was primarily comprised of non-cash expenses of $4.1 million for the revaluation of the warrants issued in the underwritten offering completed in October 2010 to their fair value as of June 30, 2012. Net other income in the 2011 period included a credit of $3.2 million for a similar revaluation of these warrants.

- Sunesis reported a net loss of $8.6 million and $22.5 million for the three and six months ended June 30, 2012, as compared to net losses of $8.2 million and $6.4 million for the same periods in 2011.

Conference Call Information

Sunesis will host an update conference call today, August 9th at 10:30a.m. Eastern Time. The call can be accessed by dialing (800) 299-7098 (U.S. and Canada) or (617) 801-9715 (international), and entering passcode 49381836. To access the live audio webcast, or the subsequent archived recording, visit the "Investors and Media - Calendar of Events" section of the Sunesis website at www.sunesis.com. The webcast will be recorded and available for replay on the company's website for two weeks.

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 more than 110 leading sites in the U.S., Canada, Europe, Australia and New Zealand. The VALOR trial is currently enrolling patients, who are 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 Data and Safety Monitoring Board (DSMB) at the interim analysis to maintain adequate power across a broader range of 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 anti-cancer quinolone derivative (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 AML

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 estimates there will be approximately 13,780 new cases of AML and 10,200 deaths from AML in the U.S. in 2012. Additionally, it is estimated that the prevalence of AML across major global markets (U.S., France, Germany, Italy, Spain, United Kingdom, and Japan) is over 50,000. 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 http://www.sunesis.com.

This press release contains forward-looking statements, including statements related to the occurrence, result and timing of the DSMB interim analysis, the design, conduct, progress and results of the VALOR trial and other clinical trials relating to our existing licensing agreements, and vosaroxin's effects, efficacy, safety profile and commercial potential as a single agent and in combination with cytarabine. Words such as “will,” “provides,” “examine,” “determine,” “decide,” “continue,” “plan,” “estimate,” “on track” 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 development and commercialization of vosaroxin, the risk that raising funds through lending arrangements may restrict our operations or produce other adverse results, 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 March 31, 2012, Sunesis’ Annual Report on Form 10-K for the year ended December 31, 2011 and Sunesis' other filings with the Securities and Exchange Commission, including Sunesis' Quarterly Report on Form 10-Q for the quarter ended June 30, 2012, 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)

	June 30, 2012	December 31, 2011
ASSETS	**(Unaudited)**	**(Note 1)**
Current assets:		
Cash and cash equivalents	$ 11,743	$ 9,311
Marketable securities	17,531	34,804
Prepaids and other current assets	1,602	1,550
Total current assets	30,876	45,665
Property and equipment, net	58	74
Deposits and other assets	108	130
Total assets	$ 31,042	$ 45,869
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 393	$ 658
Accrued clinical expense	3,982	2,370
Accrued compensation	780	1,274
Other accrued liabilities	2,749	1,805
Current portion of notes payable	900	-
Warrant liability	6,402	2,276
Total current liabilities	15,206	8,383
Non-current portion of notes payable	8,737	9,453
Non-current portion of deferred rent	-	13
Commitments		
Stockholders' equity:		
Common stock	5	5
Additional paid-in capital	430,748	429,142
Accumulated other comprehensive income (loss)	(5)	19
Accumulated deficit	(423,649)	(401,146)
Total stockholders' equity	7,099	28,020
Total liabilities and stockholders' equity	$ 31,042	$ 45,869

Note 1: The condensed consolidated balance sheet as of December 31, 2011 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, 2011.

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

	Three months ended June 30,		Six months ended June 30,	
	2012	2011	2012	2011
	(Unaudited)		(Unaudited)	
Revenue:				
License and other revenue	$ 1,500	$ -	$ 1,500	$ 4,000
Total revenues	1,500	-	1,500	4,000
Operating expenses:				
Research and development	8,072	5,950	14,718	10,020
General and administrative	2,182	1,975	4,371	3,989
Total operating expenses	10,254	7,925	19,089	14,009
Loss from operations	(8,754)	(7,925)	(17,589)	(10,009)
Interest expense	(316)	-	(631)	-
Other income (expense), net	491	(302)	(4,283)	3,622
Net loss	(8,579)	(8,227)	(22,503)	(6,387)
Unrealized gain (loss) on available-for-sale securities	(13)	21	(24)	33
Comprehensive loss	$ (8,592)	$ (8,206)	$ (22,527)	$ (6,354)
Basic and diluted loss per common share:				
Net loss:				
Basic	(8,579)	(8,227)	(22,503)	(6,387)
Diluted	(9,332)	(8,227)	(22,503)	(6,387)
Shares used in computing net loss per common share:				
Basic	46,953	46,295	46,873	46,095
Diluted	47,286	46,295	46,873	46,095
Net loss per common share:				
Basic	$ (0.18)	$ (0.18)	$ (0.48)	$ (0.14)
Diluted	$ (0.20)	$ (0.18)	$ (0.48)	$ (0.14)