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Sunesis Pharmaceuticals Reports Second Quarter 2011 Financial Results

SOUTH SAN FRANCISCO, Calif., August 11, 2011 – Sunesis Pharmaceuticals, Inc. (Nasdaq: SNSS) today reported financial results for the second quarter ended June 30, 2011. Net loss for the three and six months ended June 30, 2011 was $8.2 million and $6.4 million, respectively. As of June 30, 2011, cash, cash equivalents and marketable securities totaled $48.8 million, with no debt outstanding.

“As vosaroxin’s importance within the AML drug development landscape continues to rise, our focus as a company remains on successfully prosecuting the VALOR trial, our robust, adaptive Phase 3 study, and supporting a successful commercialization strategy,” said Daniel Swisher, Chief Executive Officer of Sunesis. “The VALOR trial now has over 60 active sites in 11 countries, and is on track to reach the interim analysis in mid-2012 and the planned unblinding in 2013. In addition to our efforts in advancing vosaroxin during the quarter, we brought to light the significant potential of our pipeline programs with the announcement of a new oncology kinase inhibitor collaboration with Millennium Pharmaceuticals, which includes a very promising oral, selective pan-Raf kinase inhibitor ready to enter clinical development.”

Second Quarter 2011 and Recent Highlights

- ***Presented adaptive study design for vosaroxin Phase 3 VALOR trial in AML at ASCO 2011.*** In June, Sunesis presented the adaptive study design for its Phase 3 VALOR trial of vosaroxin in AML at the Trials in Progress Poster Session of the 2011 American Society of Clinical Oncology (ASCO) Annual Meeting in Chicago, Illinois. The poster, entitled "Adaptive design of VALOR, a phase 3 trial of vosaroxin or placebo in combination with cytarabine for patients with first relapsed or refractory acute myeloid leukemia," is available on the Sunesis website at www.sunesis.com.

- ***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 assets 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.

- ***Received $1.2 million from repayment of notes by SARcode Bioscience, Inc*.** On August 8, 2011, SARcode Bioscience, Inc. repaid three promissory notes that had originally been issued to Sunesis. The total amount received by Sunesis represents the aggregate principal value of $1.0 million plus accrued interest. Sunesis had not previously recognized any revenue related to these notes.

- ***Issued important U.S. patent covering vosaroxin use in leukemia.*** On August 3, 2011, Sunesis announced that it had been granted a patent by the U.S. Patent and Trademark Office (USPTO), covering methods of use for vosaroxin at various dose ranges and schedules for the treatment of leukemia, including the dose and schedule under evaluation in the pivotal, Phase 3 VALOR trial. The patent provides coverage through 2026. Additionally, in June 2011, the USPTO granted Sunesis a patent covering combinations of vosaroxin with cytarabine, which provides coverage to 2026.

- ***Announced publication of Phase 1b data of vosaroxin in relapsed or refractory leukemia.*** In July, Sunesis announced the publication of data from a Phase 1b multi-center study of vosaroxin in relapsed or refractory leukemia in the July 2011 issue of *Leukemia*. The results show that single-agent vosaroxin was well-tolerated, with a potent anti-leukemic effect in patients who had received multiple prior therapies. The Phase 1b data, along with results from Phase 2 studies of vosaroxin used alone and in combination with cytarabine in the treatment of acute myeloid leukemia (AML), support the currently-enrolling VALOR trial. The Leukemia article and full, published data set are available online at: http://www.nature.com/leu/journal/vaop/ncurrent/full/leu2011157a.html.

- ***Announced publication of nonclinical data of vosaroxin in acute myeloid leukemia.*** In May, Sunesis announced the publication by a leading academic group in Cardiff, United Kingdom of nonclinical data of vosaroxin in the March 2011 issue of *Haematologica*. The results demonstrate vosaroxin's potent cytotoxic activity in primary patient AML blasts ex vivo when used alone and synergistic activity when used in combination with cytarabine, a leading current treatment standard in AML, consistent with prior observations in preclinical models. The studies also extend Sunesis' observations in primary breast and ovarian cancer biopsies that vosaroxin remains active in the absence of p53, a tumor suppressing protein associated with resistance to chemotherapy. The Haematologica article and full, published data set are available online at http://www.haematologica.org/cgi/content/full/96/3/393.

Financial Highlights

- Cash, cash equivalents and marketable securities totaled $48.8 million as of June 30, 2011, compared to $53.4 million as of December 31, 2010. The decrease of $4.6 million was primarily due to $8.9 million of net cash used in operating activities, offset by net proceeds of $4.1 million from sales of Sunesis' common stock through its facility with Cantor Fitzgerald & Co. Sunesis believes that currently available and accessible funds are sufficient to fund the company to the planned unblinding of the VALOR trial.

- Total revenue for the six months ended June 30, 2011 was $4.0 million as compared to $27,000 for the same period in 2010. Revenue in the first half of 2011 was due to the upfront payment of $4.0 million from Millennium.

- Research and development expenses increased to $6.0 million and $10.0 million for the three and six months ended June 30, 2011, as compared to $3.0 million and $6.1 million for the same periods in 2010. The increases in 2011 were primarily due to increases in clinical expenses incurred as a result of the ramp-up of the VALOR trial and drug manufacturing activities.

- General and administrative expenses for the six months ended June 30, 2011 were $4.0 million, as compared to $3.4 million for the same period in 2010. The increase between the six month periods was primarily due to higher legal and marketing costs.

- Net other expense was $0.3 million for the second quarter of 2011 and net other income was $3.6 million for the first half of 2011, The net other income in the six month period was primarily comprised of a net non-cash credit of $3.2 million for the revaluation of warrants issued in the October 2010 offering to their fair value as of June 30, 2011 and net foreign exchange gains of $0.3 million.

- Sunesis reported a net loss of $8.2 million and $6.4 million for the three and six months ended June 30, 2011, as compared to a net loss of $4.8 million and $9.4 million for the same periods in 2010.

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 occurred 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, vosaroxin's effects, efficacy and safety profile as a single agent and in combination with cytarabine, the benefits to Sunesis from its collaboration arrangement with Millennium and the sufficiency of Sunesis' currently available and accessible funds to the planned unblinding of the VALOR trial. Words such as “focus,” “on track,” planned,” “potential,” "promising," “demonstrate,” "will" “believes,” “expected” 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 March 31, 2011, 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 June 30, 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)

	June 30, 2011	December 31, 2010
ASSETS	(Unaudited)	(Note 1)
Current assets:		
Cash and cash equivalents	$ 7,574	$ 14,223
Marketable securities	41,258	39,173
Prepaids and other current assets	1,440	1,286
Total current assets	50,272	54,682
Property and equipment, net	94	116
Deposits and other assets	60	60
Total assets	$ 50,426	$ 54,858
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 329	$ 416
Accrued clinical expense	2,401	1,574
Accrued compensation	758	1,013
Other accrued liabilities	1,700	1,406
Warrant liability	4,913	8,154
Total current liabilities	10,101	12,563
Non-current portion of deferred rent	31	48
Commitments		
Stockholders' equity:		
Common stock	5	5
Additional paid-in capital	427,663	423,262
Accumulated other comprehensive income (loss)	18	(15)
Accumulated deficit	(387,392)	(381,005)
Total stockholders' equity	40,294	42,247
Total liabilities and stockholders' equity	$ 50,426	$ 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 June 30,		Six months ended June 30,	
	2011	2010	2011	2010
	(Unaudited)		(Unaudited)	
Revenue:				
Collaboration revenue	$ -	$ 14	$ -	$ 27
License and other revenue	-	-	4,000	-
Total revenues	-	14	4,000	27
Operating expenses:				
Research and development	5,950	2,970	10,020	6,081
General and administrative	1,975	1,862	3,989	3,416
Total operating expenses	7,925	4,832	14,009	9,497
Loss from operations	(7,925)	(4,818)	(10,009)	(9,470)
Other income (expense), net	(302)	34	3,622	38
Net loss	$ (8,227)	$ (4,784)	$ (6,387)	$ (9,432)
Basic and diluted net loss per common share	$ (0.18)	$ (0.44)	$ (0.14)	$ (1.04)
Shares used in computing basic and diluted net loss per common share	46,295	10,912	46,095	9,038