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Millennium Pharmaceuticals and Sunesis Pharmaceuticals Announce Collaboration for Kinase Inhibitors in Oncology

***– Sunesis Receives a \$4M Payment –
– Sunesis to Host Conference Call Today, April 5th at 10:00 AM Eastern Time –***

SOUTH SAN FRANCISCO, Calif., CAMBRIDGE, Mass., April 5, 2011 – Millennium: The Takeda Oncology Company and Sunesis Pharmaceuticals, Inc. (NASDAQ: SNSS) today announced a license agreement for the development of Sunesis' oral, selective pan-Raf kinase inhibitor and one additional undisclosed kinase inhibitor program in oncology.

These programs were part of Sunesis' 2004 multi-kinase inhibitor collaboration with Biogen Idec. Following Biogen Idec's November 2010 announcement to focus on neurology and spin out or outlicense its oncology assets, Millennium acquired two of these oncology assets and will continue the development of these in collaboration with Sunesis. Biogen Idec and Sunesis are continuing a separate collaboration focused on a unique preclinical kinase inhibitor program involved in immunology.

"We are very excited to be working with Millennium, a company that focuses on developing first-in-class and best-in-class oncology compounds," stated Daniel Swisher, Chief Executive Officer of Sunesis. "We look forward to Millennium's transition of the pan-Raf kinase investigational agent into clinical studies, while we continue to focus our resources and attention on our ongoing Phase 3 VALOR trial for vosaroxin in AML."

"These kinase inhibitor programs represent an important addition to our portfolio and reflect our strategy to develop novel oncology therapies by targeting the underlying pathways of the disease process," said Nancy Simonian, M.D., Chief Medical Officer, Millennium. "In addition, the Raf kinase inhibitor investigational agent offers a compelling development opportunity as it targets a clinically validated pathway. We look forward to building on the strong preclinical dataset as we advance this program into clinical trials."

Non-clinical data from the oral and selective pan-Raf inhibitor were presented at the EORTC-NCI-AACR meeting in November 2010. Data were presented that demonstrated potent pan-Raf kinase inhibition in biochemical kinase assays. Data were also presented that showed profound

antitumor activity in both large B-Raf mutant melanoma tumor models, tumor models of B-Raf wild-type melanoma and other B-Raf wild-type tumor types.

Under the terms of the agreement with Biogen Idec and Millennium, Sunesis has received a \$4 million upfront payment from Millennium. Sunesis continues to be eligible to receive up to \$60 million in pre-commercial milestone program payments and royalties on sales of future collaboration products. In addition, Sunesis has retained its future co-development and co-promotion rights.

“We are delighted to transition our collaboration with Sunesis on these oncology programs to Millennium, a world-class oncology organization,” said Steven Holtzman, Executive Vice President of Corporate Development at Biogen Idec. “We look forward to seeing the oncology programs progress under Sunesis and Millennium’s new collaboration, as we continue to drive forward our partnership with Sunesis on our immunology program.”

Conference Call Information

Sunesis will host a conference call on April 5, 2011, 10:00 a.m. Eastern time to discuss the license agreement. The call can be accessed by dialing 866.831.6267 (U.S. and Canada) or 617.213.8857 (international) and entering the passcode 12246875. 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 Sunesis' website for two weeks.

About Raf Kinase Program

The Raf kinases (A-Raf, B-Raf and C-Raf) are key regulators of cell proliferation and survival within the mitogen-activated protein kinase (MAPK) pathway. The MAPK pathway is frequently dysregulated in human cancers, often via activating mutations of Ras or Raf.

About Millennium

Millennium: The Takeda Oncology Company, a leading biopharmaceutical company based in Cambridge, Mass., markets a first-in-class proteasome inhibitor in the US, and has a robust clinical development pipeline of global product candidates. Millennium Pharmaceuticals, Inc. was acquired by Takeda Pharmaceutical Company Ltd. in May, 2008. The Company’s research, development and commercialization activities are focused in oncology. Additional information about Millennium and Takeda are available through their respective websites.

About Takeda

Located in Osaka, Japan, Takeda is a research-based global company with its main focus on pharmaceuticals. As the largest pharmaceutical company in Japan and one of the global leaders of the industry, Takeda is committed to strive towards better health for patients worldwide through leading innovation in medicine. Additional information about Takeda is available through its corporate website, www.takeda.com.

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 respective collaborations between Millennium: The Takeda Oncology Company and Sunesis and between Biogen Idec and Sunesis. These forward-looking statements are based upon current expectations and actual results and the timing of events could differ materially from those discussed in such forward-looking statements as a result of risks and uncertainties, which include, without limitation, risks related to the timing of the development of products under the collaborations, the achievement of milestones, the ability and willingness of Millennium or Biogen Idec to progress collaboration compounds and for Sunesis to receive milestone payments, royalties and co-promotion and co-development rights. These and other risk factors are discussed under "Risk Factors" and elsewhere in the companies' most recent annual and quarterly reports. The companies expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the companies' expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based.

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