



Senesco Technologies, Inc.

NYSE AMEX: SNT

NYSSA

**2010 Biotech & Speciality Pharmaceuticals
Industry Conference**

November 30th, 2010

NYSEAMEX: SNT



Safe Harbor Statement

Certain statements included in this press release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from such statements expressed or implied herein as a result of a variety of factors, including, but not limited to: the ability of the Company to consummate additional financings; the development of the Company's gene technology; the approval of the Company's patent applications; the successful implementation of the Company's research and development programs and collaborations; the success of the Company's license agreements; the acceptance by the market of the Company's products; success of the Company's preliminary studies and preclinical research; competition and the timing of projects and trends in future operating performance, the Company's ability to continue to comply with the continued listing standards of the NYSE/AMEX, as well as other factors expressed from time to time in the Company's periodic filings with the Securities and Exchange Commission (the "SEC"). As a result, this press release should be read in conjunction with the Company's periodic filings with the SEC. The forward-looking statements contained herein are made only as of the date of this press release, and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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Opportunity Highlights

- **Public company in transition**
- **Product ready for clinical validation**
- **Relevance to multiple diseases**
- **Partnering with pharma and biotech**
- **Extremely strong IP**



Senesco Technology Validation

- **Founded 1998, located New Brunswick, NJ**
 - **Based on eukaryotic translation initiation Factor 5A**
 - **Factor 5A induced enhancements in plants**
 - Increased biomass production
 - Increased growth rates
 - Enhanced shelf life
 - Protection against drought, salinity
 - Disease resistance
 - Reduced fertilizer needs
- **Royalty bearing licenses – Monsanto, Bayer, etc.**
- **Partners with on-going field trials**



Senesco



Senesco Transition

- **Applying Factor 5A platform to treat human disease**
 - Gene regulation control
 - SNS01-T is siRNA and DNA plasmid
- **Clinical program**
 - Ready for IND submission
 - First study in multiple myeloma
 - Extend later to B-cell leukemia, Non-Hodgkins lymphoma





Factor 5A is a Novel Target

- **Factor 5A has broad therapeutic potential**
 - Regulation of cell death and survival
 - Relevant to multiple diseases – oncology, inflammation, diabetes
 - Controls multiple anti-cancer pathways
 - Validated by existing cancer therapeutics
- Also**
- Up-regulated in human heart failure
 - Proven potential in diabetes models

Strategy

- **Focus on cancer indications at Senesco**
- **Partner non-cancer indications with pharma and biotech**



Intellectual Property

➤ Issued Patents

- US – 21
- Foreign – 57
- Agriculture – 52
- Human therapeutics – 25

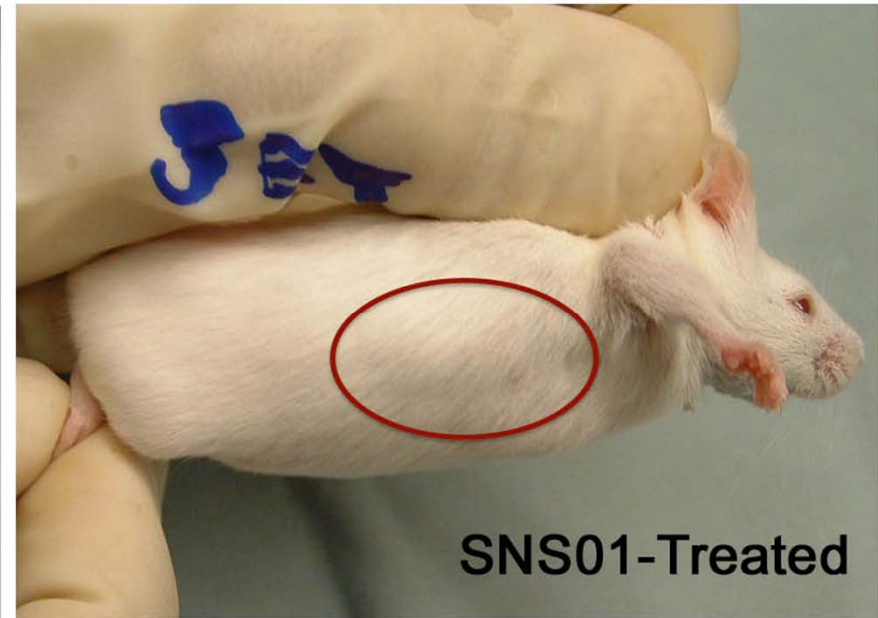
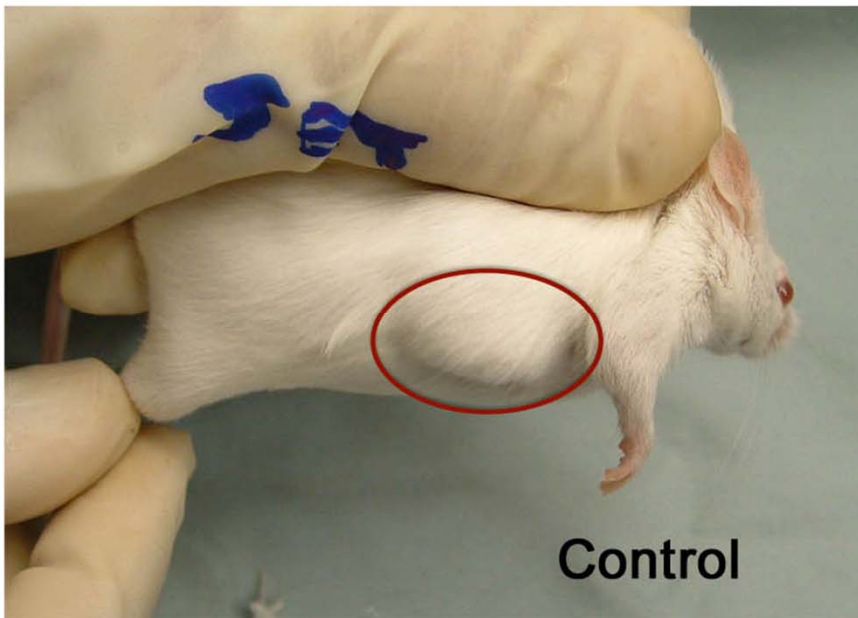


➤ Expirations

- Agriculture – 2019 in US and 2024 in ROW
- Core human – 2021 in US and 2025 in ROW
- Multiple myeloma – 2026 in both US and ROW

Numerous additional applications in US and ROW

Tumor Growth Control



Multiple myeloma tumor shrunk by SNS01 treatment

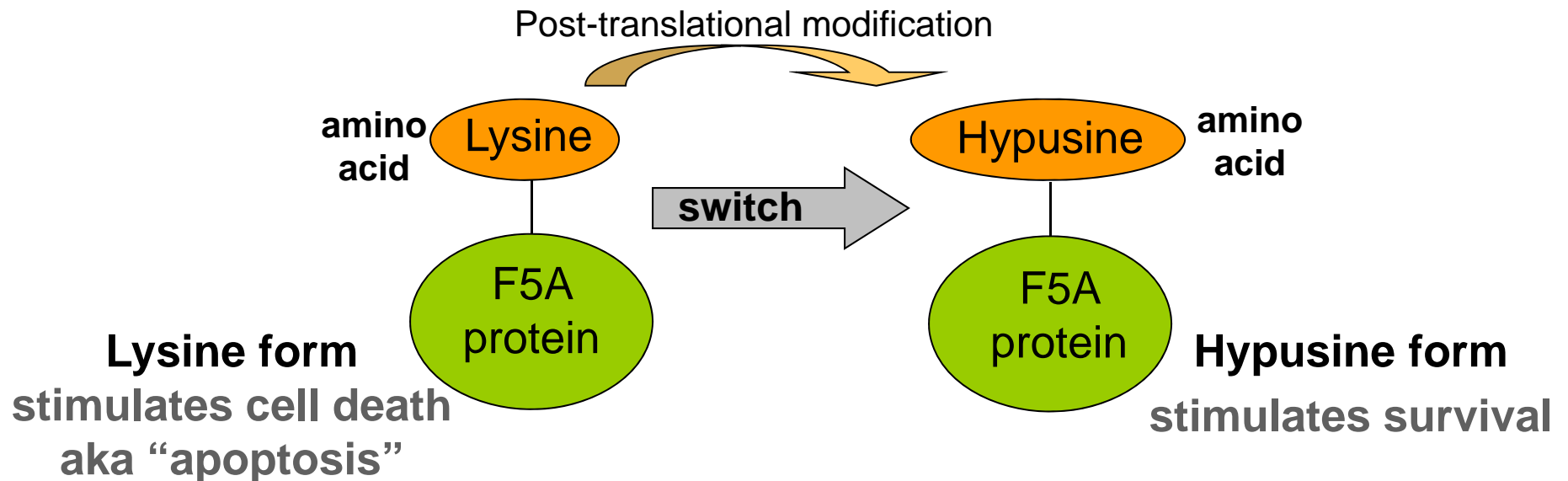


How It Was Designed To Work

“Reprogramming Tumor Cells”

Factor 5A – Cell Growth Switch

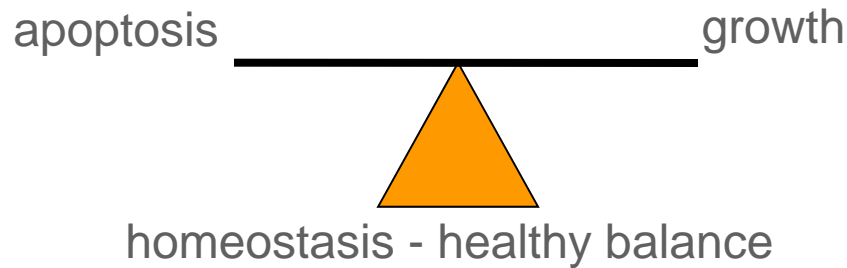
Factor 5A protein has two different forms that act as a biological switch to promote cell death or survival



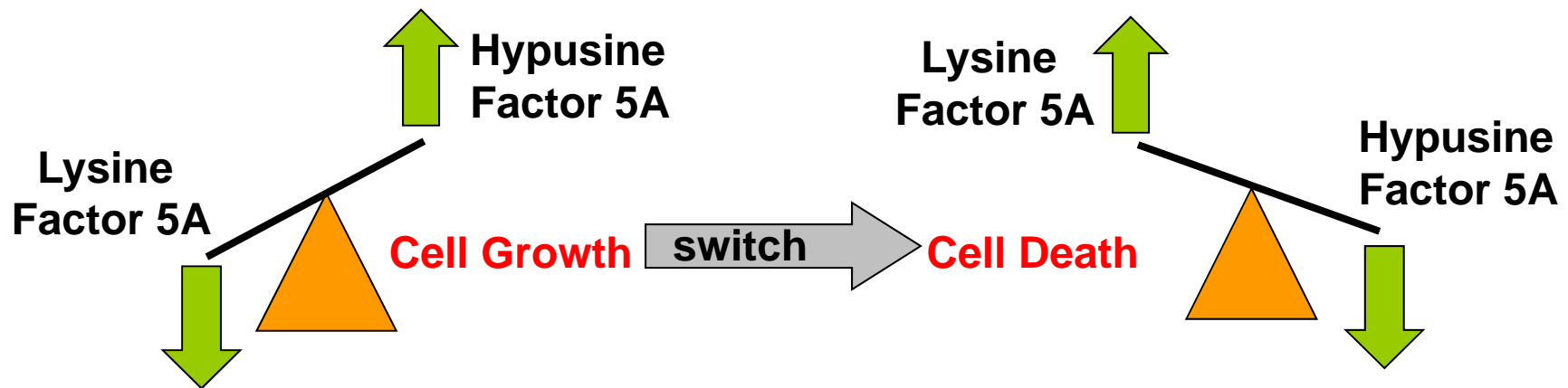
Hypusine occurs by conversion from Lysine only in Factor 5A

Factor 5A Therapeutic Strategy

In health a balance exists between growth and apoptosis



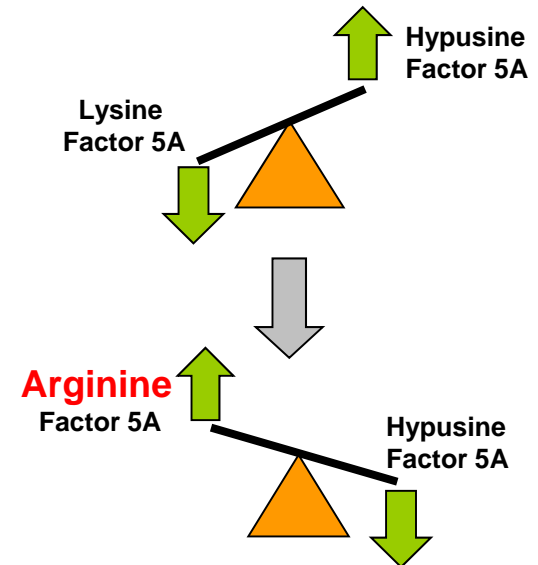
Balance is lost in disease including cancer



Cancer Targeting Approach

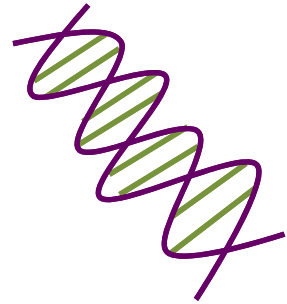
Two Steps

1. Silence Factor 5A gene - siRNA
 - Lower hypusine Factor 5A
 - Turns off growth signal
2. Replace Lysine Factor 5A with Arginine form of protein – DNA
 - No conversion to hypusine
 - Activates cell death pathway



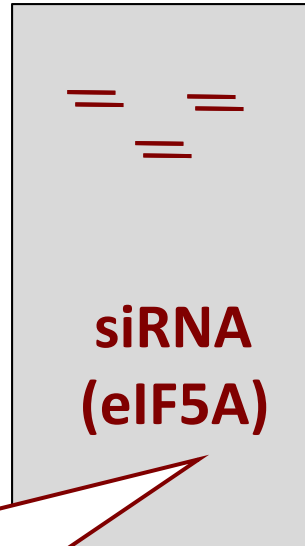
Simple solution to uncontrolled cellular growth

SNS01-T has 3 components



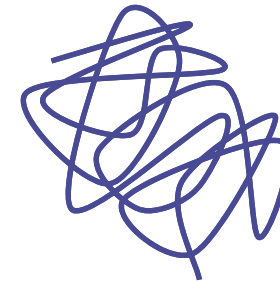
Plasmid DNA
(pCpG-eIF5A^{K50R})

+



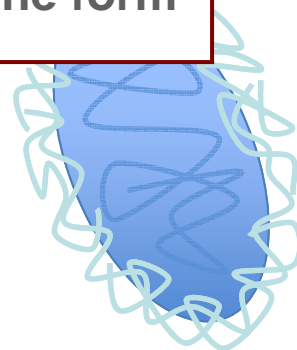
siRNA
(eIF5A)

+



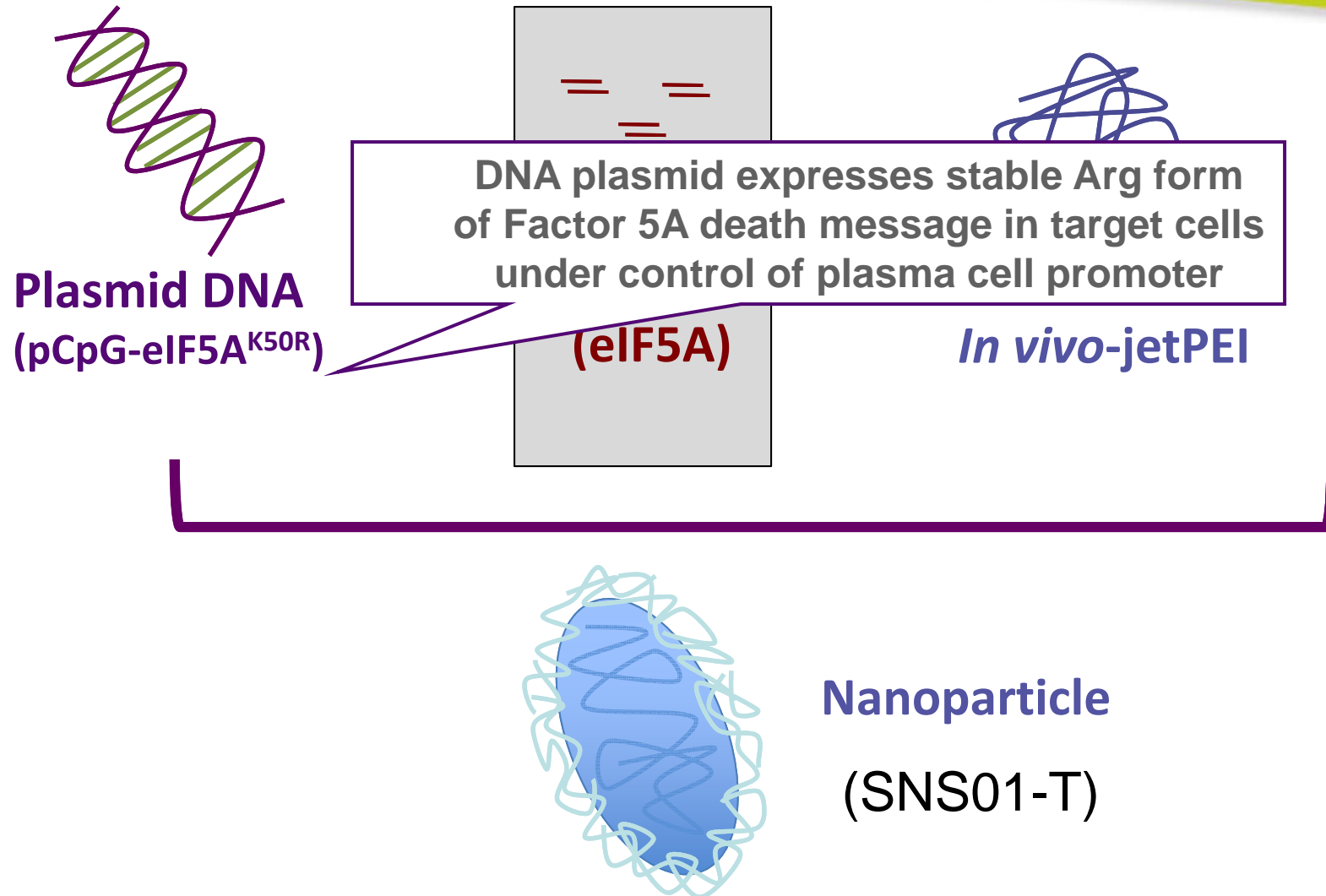
In vivo-jetPEI

siRNA eliminates all endogenous Factor 5A expression including the growth message from hypusine form

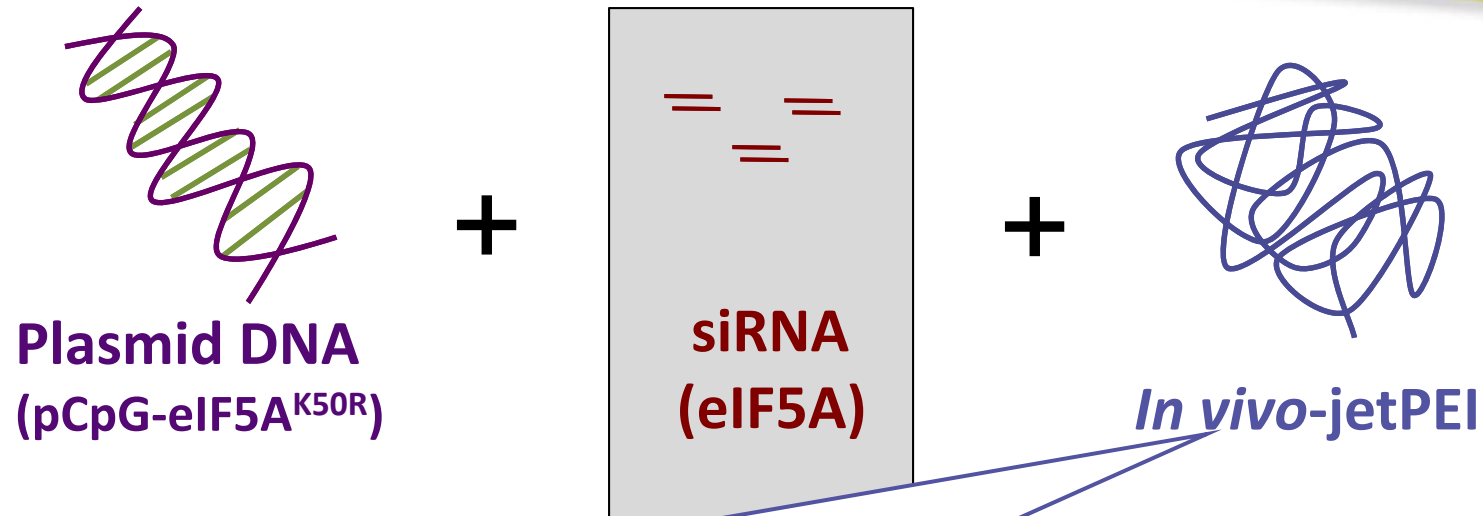


Nanoparticle
(SNS01-T)

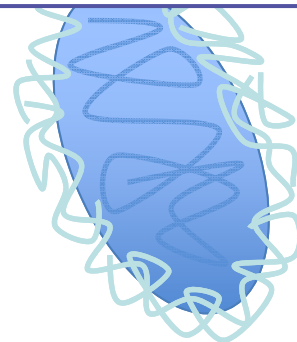
SNS01-T has 3 components



SNS01-T has 3 components



PEI protects the combination from degradation until it enters the tumor cells and delivers the siRNA/DNA plasmid



Nanoparticle
(SNS01-T)



S E N E S C O

Efficacy in Model Systems

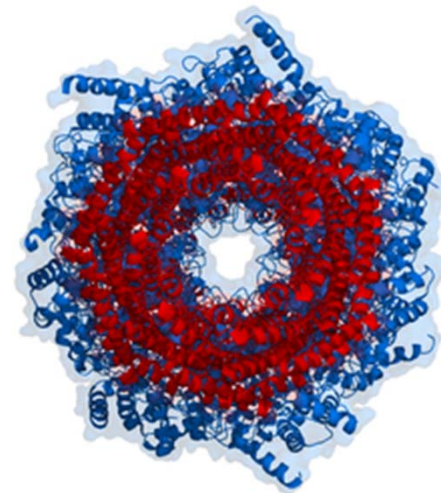
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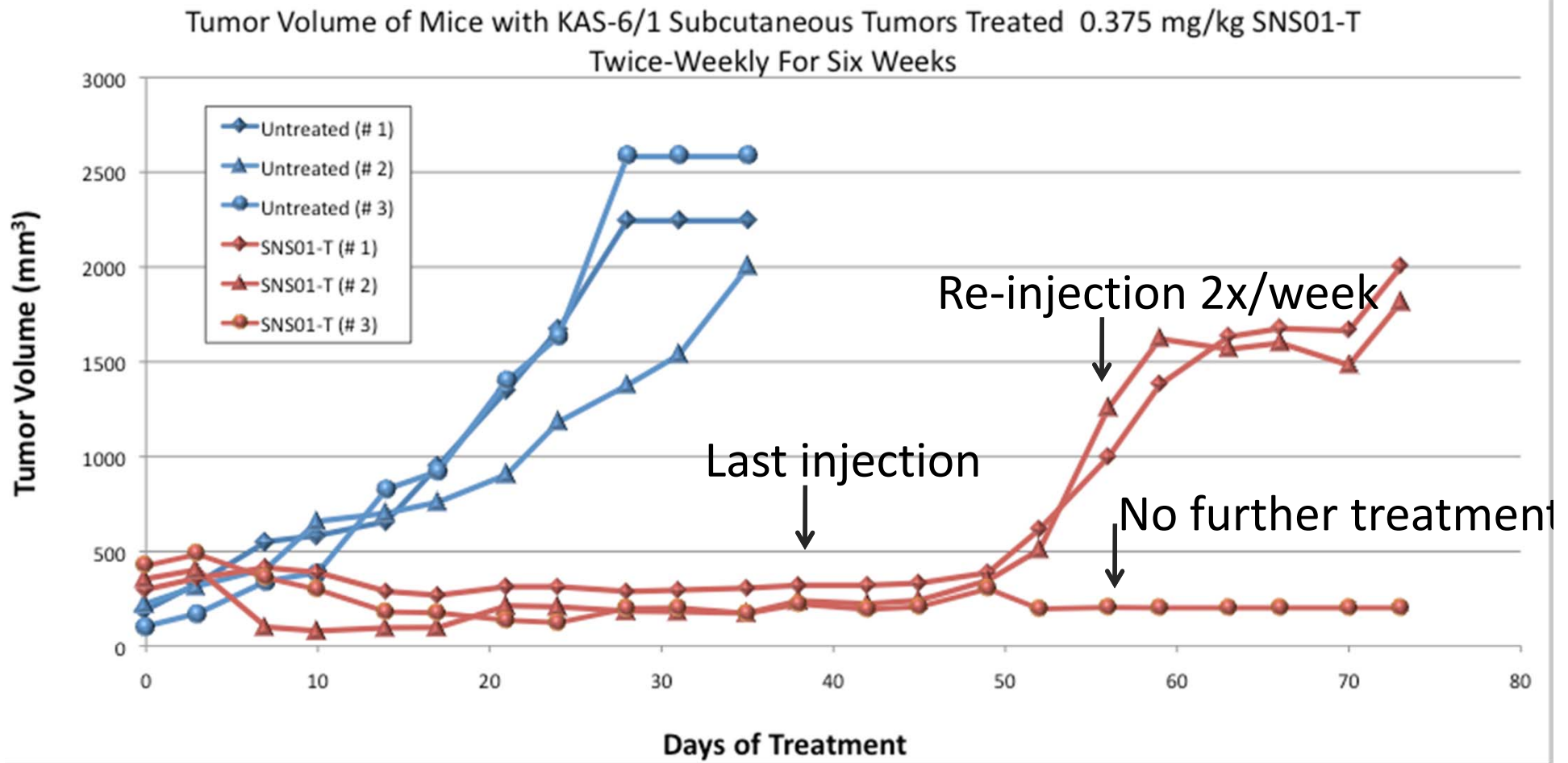
Human Factor 5A in Cancer

➤ **Factor 5A has broad activity in all cancer cell lines tested to date:**

- human multiple myeloma
- human melanoma
- human nasal pharyngeal cancer
- human colon carcinoma
- human cervical cancer
- human lung carcinoma
- human ovarian cancer
- human bladder carcinoma



Human Tumor Growth Control in Mice



Impressive efficacy in animal models of multiple myeloma



S E N E S C O

Targeting Cancer and Multiple Myeloma

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Targeting Multiple Myeloma: SNS01-T

➤ Multiple Myeloma

- liquid tumor of the bone marrow
- 1% of cancer in the US - orphan indication
- ~ 2/3 of patients survive less than 5 years
- surrogate biomarkers of disease, e.g. M-protein
- potential proof of concept in first study



Leading Marketed Products

Company	Drug	2009 Sales
Takeda	bortezomib	\$1,463 MM
Celgene	lenalidomide	\$1,706 MM
Celgene	thalidomide	\$437 MM

Primary market needs: *treatment for refractory patients and fewer side effects especially peripheral neuropathy*



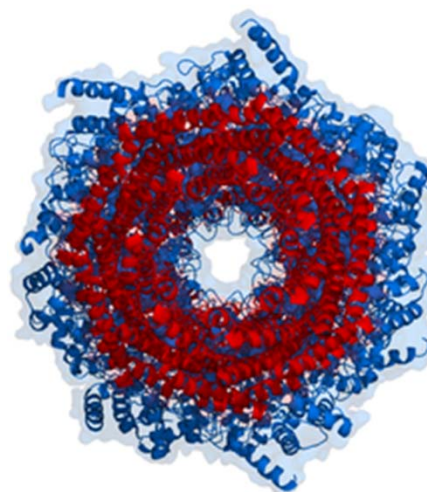
SNS01-T Phase 1b/2a Clinical Trial

➤ Multiple myeloma clinical site

- John Lust, M.D. at Mayo Clinic, Rochester, MN

➤ Dose escalation study

- refractory multiple myeloma patients (failure on two standard regimens)
- 3 cohorts, 4-5 patients per cohort
- 6 week therapy per patient
- Twice-weekly, 3 hr IV infusions
- doses depend on on-going safety studies





Clinical Measurements

➤ Safety

- frequency, severity, and duration of treatment-emergent AEs and changes in laboratory parameters

➤ Pharmacokinetics

- distribution of DNA plasmid and siRNA

➤ Preliminary efficacy

- time to progression as determined by changes in biomarkers including M-protein and C-reactive protein



Management

Leslie J. Browne, Ph.D.

President & CEO,
formerly CEO Pharmacoepia, Novartis

Joel Brooks

CFO & Treasurer
formerly Goldstein, Golub, Kessler LLP

John E. Thompson, Ph.D.

Founder, EVP, R&D, FRS of Canada
Dean of Science, U of Waterloo

Richard S. Dondero

Vice President, R&D
formerly VP Operations Cistrion, J&J



Board of Directors

Harlan W. Waksal, M.D.

John N. Braca

Christopher Forbes

Warren Isabelle, CFA

Thomas C. Quick

David Rector

Ruedi Stalder

John E. Thompson, Ph.D.

Jack Van Hulst

Chair, Former COO, Imclone Systems

Man Dir, Fountainhead, GP S.R. One

Vice Chair, Forbes, Inc.

Founder, Ironwood Investment

Vice Chair, Quick & Reilly/Fleet

Director Fullcom Technologies, Inc.

Former executive board member CSFB

Executive VP, R&D, FRS of Canada

Operating Partner, SK Capital Partner



Financial Summary

Stock Exchange	NYSE/AMEX - SNT
52 Week Range:	\$0.22 - \$0.75
Shares Outstanding (10/31/2010):	67.7 million
Fully Diluted:	147.8 million

	Year ended June 30,	
	2010	2009
Revenue	<u>\$140,000</u>	<u>\$275,000</u>
Operating expenses		
General and administrative	\$2,349,116	\$2,205,739
Research and development	<u>\$2,637,407</u>	<u>\$2,353,962</u>
Total operating expenses	<u>\$4,986,523</u>	<u>\$4,559,701</u>
Cash and cash equivalents	<u>\$8,026,296</u>	<u>\$1,430,569</u>
Cash at September 30, 2010	<u>\$6,290,995</u>	



Investment Opportunity

- ▶ **Clinical development stage biotech with newsflow**
- ▶ **Raised \$11.5 million in 2Q-10**
- ▶ **IND submission planned 4Q-10**
- ▶ **Initiate clinical study in multiple myeloma by 1H-11**
- ▶ **Initial results of safety and efficacy by 4Q-11**





Corporate Information

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