Not Your Grandmother's Cough Syrup

From the Lab of Dr. Harish Joshi

(S, R)-Noscapine

Presented by Chris Paschall
Emory OTT Breakfast Club
December 8, 2010

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What is Noscapine?

- An opioid alkaloid derived from the Poppy plant family
- Used primarily as an antitussive; has been an ingredient in “Grandma’s cough syrup” in Europe and Japan for many years
- Noscapine is a potent microtubule stabilizer that appears to arrest the cell cycle in the G2/M phase and initiate apoptosis
- Similar MOA to Taxol without apparent side effects; orally bioavailable
Business Opportunity

- In 2004, Emory licensed Noscapine portfolio to Cougar Biotech
- In June 2009, Cougar began clinical trials on Noscapine

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<th>DRUG</th>
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- In July 2009, Cougar was acquired by Johnson & Johnson (JNJ)
- In Spring 2010, Emory terminated license agreement
- Emory has the ability to obtain clinical and regulatory data for fair market value
Clinical Trial Information

Go to www.clinicaltrials.gov and type “Noscapine”

Sponsor – Cougar Biotechnology

Condition – Refractory Multiple Myeloma

Phase – Phase I/II

Endpoint Classification: Safety/Efficacy Study

Primary Outcome Measures: To determine the maximum tolerated dose

Secondary Outcome Measures: To assess anti-tumor effects as classified by International Uniform Response Criteria for Multiple Myeloma

Inclusion Criteria: Advanced Multiple Myeloma
But Wait, There’s More!
Additional IP
Patents Covering…

Novel Compounds
Bromo-Noscapine*
Amino-Noscapine*
Folate-Conjugated Noscapine

Indications/Methods of Treatment
Melanoma
Glioblastoma
Drug Resistant T-cell Lymphoma
Ovarian Cancer
Breast Cancer
Prostate Cancer
Familial Adenomatous Polyposis (FAP)
Inflammation

✓ More than 20 publications out of Joshi lab describing Noscapine derivatives and their uses
THANK YOU