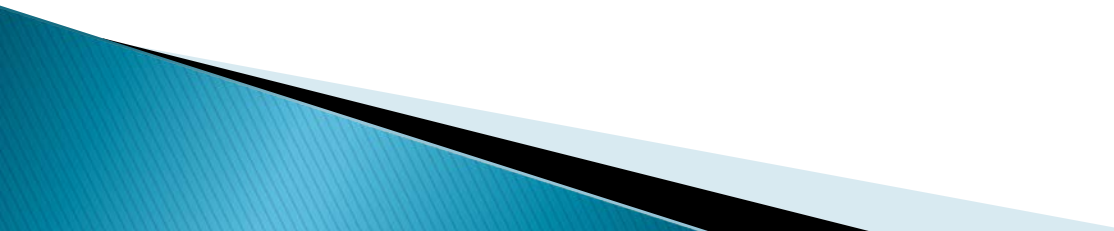


# Poster Presentation Instructions and Template with Example

Dr. Gail P. Taylor  
UT San Antonio  
02/28/2013

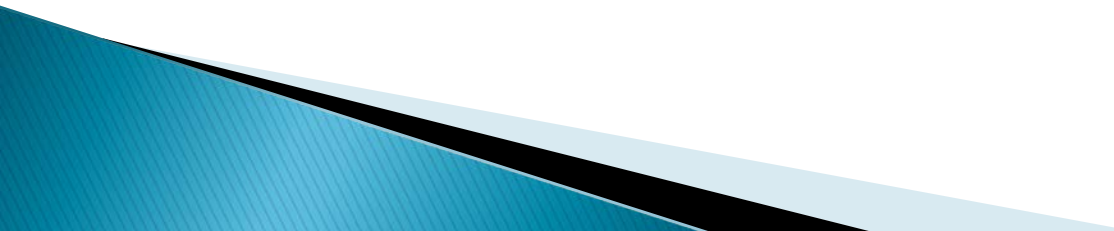
# Presentation Duration

- ▶ Student Conference Presentation
  - ▶ 15 minute presentation
    - 10 Minutes Talk
    - 5 minutes for questions
    - At most, 15 slides
- 

# Outline of Entire Presentation

- ▶ Title Slide: Strong title, your name, mentor, school.
- ▶ Introduction/Background (2–3 slides).
  - Why/How is your topic important (health?)
  - Give brief literature background (broad to specific)
  - Goals of project
  - Hypothesis
- ▶ Methods and exptl design (1 to 2 slides– flowcharts good)
- ▶ Results (1 – 2 experiments) 2–3 slides
- ▶ Summary/Conclusions
  - Bulleted and refer back to hypothesis
- ▶ Future Directions
- ▶ Acknowledgements
- ▶ Questions?

# Slide Characteristics

- ▶ Uniform Font
  - ▶ Uniform title size and position
  - ▶ Short phrases
  - ▶ ~Six lines per page
  - ▶ Story carried by images
  - ▶ Contrast between background and text
  - ▶ All text big (even on figs)
- 

NOTE! I have  
Made up all of the  
data in this study.



# Ergot-Derived Substance-X Reduces Tumor Growth and Size in Nude Mice with MCF-7 Mammary Adenocarcinoma

Emily P Frogbottom

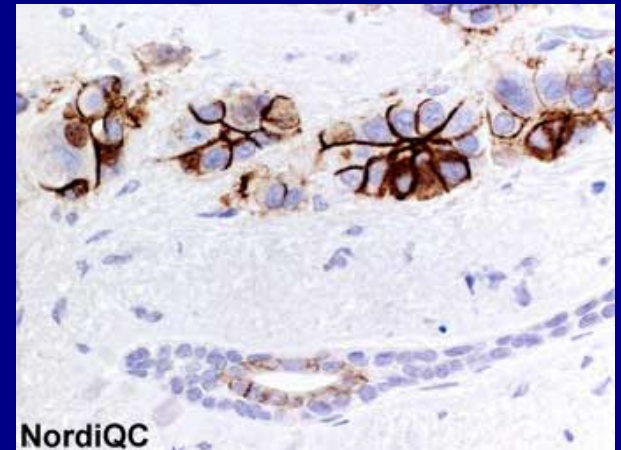
Undergraduate Research Trainee

Research Mentor: Dr. Tenure Track

University of Texas at San Antonio

# Introduction – Breast Cancer

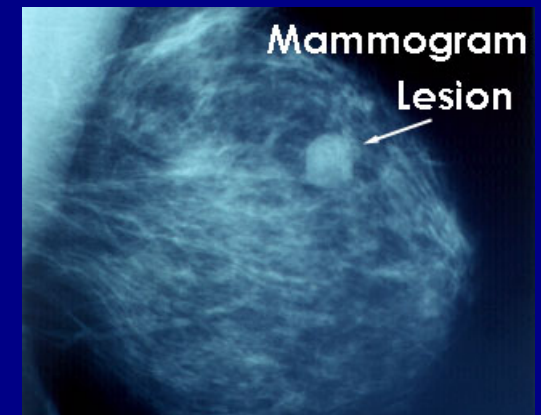
- 100,000 diagnoses annually<sup>1</sup>
- Leading cause of death in women 15-54<sup>1</sup>
- Vary in metastatic capacity
- Vascularization required for growth/metastasis
- MCF-7: Human adenocarcinoma cell line



<sup>1</sup> Centers for Disease Control, 2010

# Introduction –Treatment

- Generally surgery & chemotherapy
- Mortality \_\_\_% at 5 years<sup>1</sup>
- More effective chemotherapeutic agents needed
- Some work by inhibiting vascularization<sup>2</sup>



<sup>2</sup> De Olivera, L, Hamm A, Mazzone M (2011) Mol Aspects Med. 2011 Apr;32(2):71-87. Epub 2011 Apr 22

# Introduction - Ergot

- *Claviceps purpurea* fungus
- "Cocktail" of active substances
- CNS - Psychoactive Ergotamine ~LSD
- Peripheral Effects –
  - Tingling- "St. Anthony's Fire"
  - Inhibit vascularization and promotes gangrene
- Vasoactive Substance-X isolated<sup>3</sup>
  - Inhibits growth of cultured endothelial cells<sup>3</sup>



<sup>3</sup>Taylor, GP (2011) Terrific thought experiment on using a deadly scourge to humanity to cure cancer. Journal of Positive Data 3(3), 210-212



# Hypothesis

- MCF-7 tumor growth will be inhibited through treatment with vasoactive Substance-X. Inhibition will be associated with reduced angiogenesis

# Experimental Design/Methods

## Culture

- MCF-7 Cells
- DMEM
- 2 weeks
- <40% conf.

## Induction

- Athymic mice
- N=40 (4 grps)
- SubQ Injection
- Thigh
- $10^6/50\text{ul}$
- 1 mo growth

## Treatment

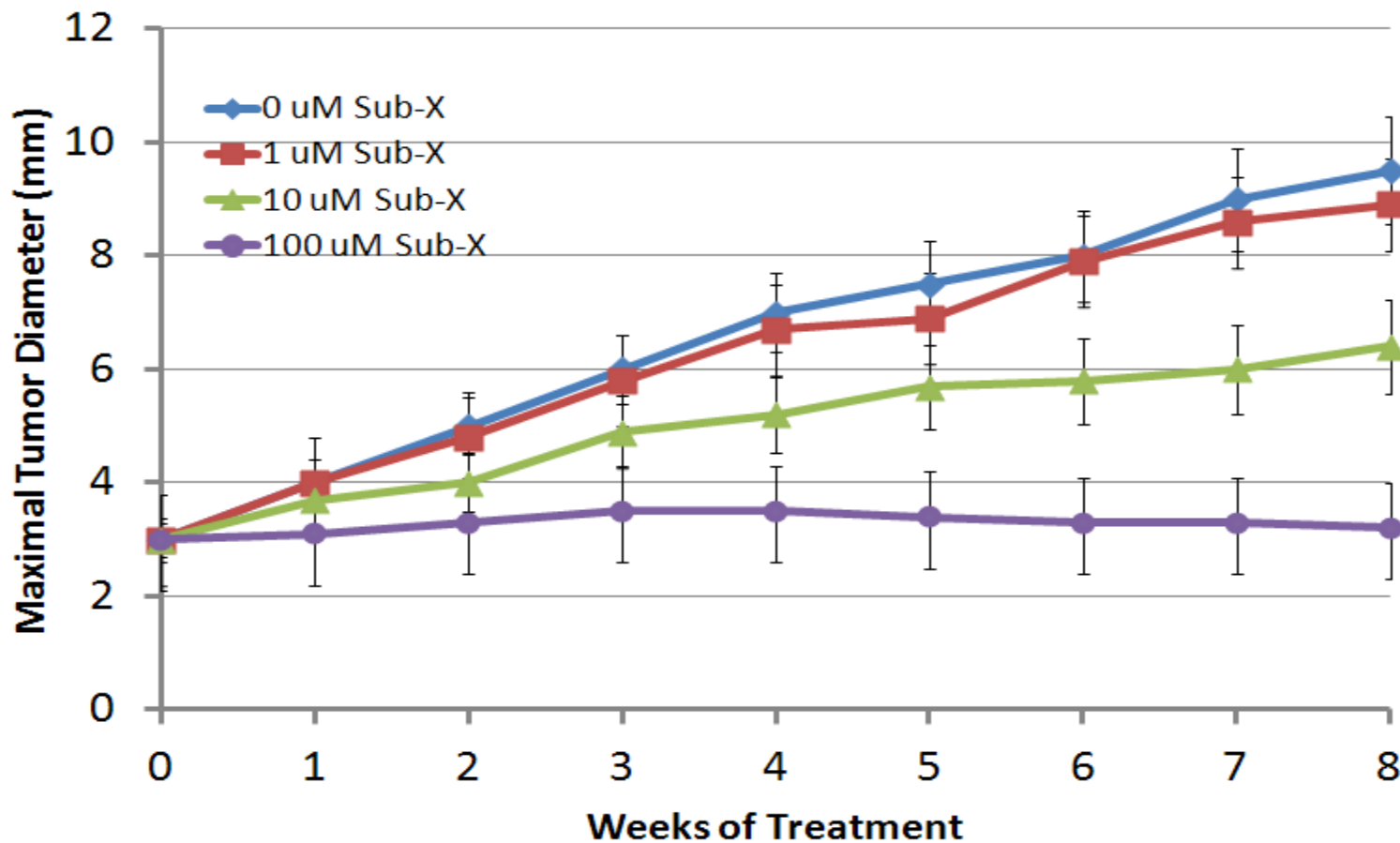
- SubQ injections
- Control (solv)
- 1, 10 100 uM SubX
- Daily for 8 wk

## Analysis

- Weekly caliper measurement
- 8 weeks sac
- Cryosection
- ICC anti-BV
- Density Test
- Stats – T-Test

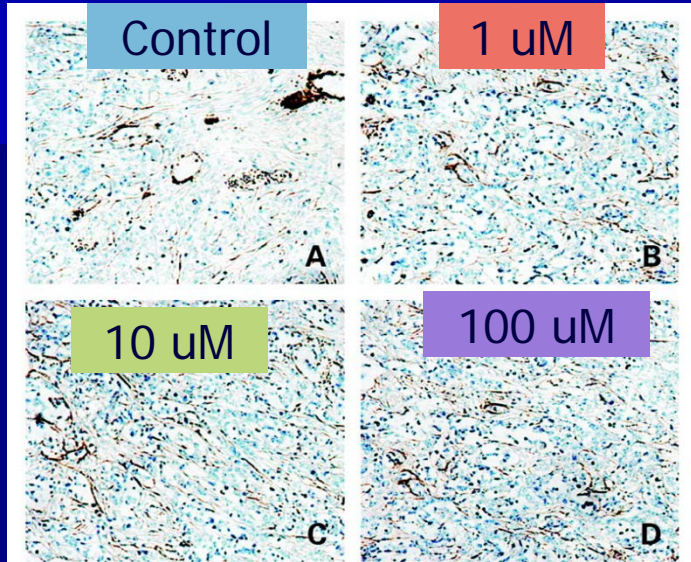
# Results

## Substance-X Inhibited MCF-7 Tumor Growth



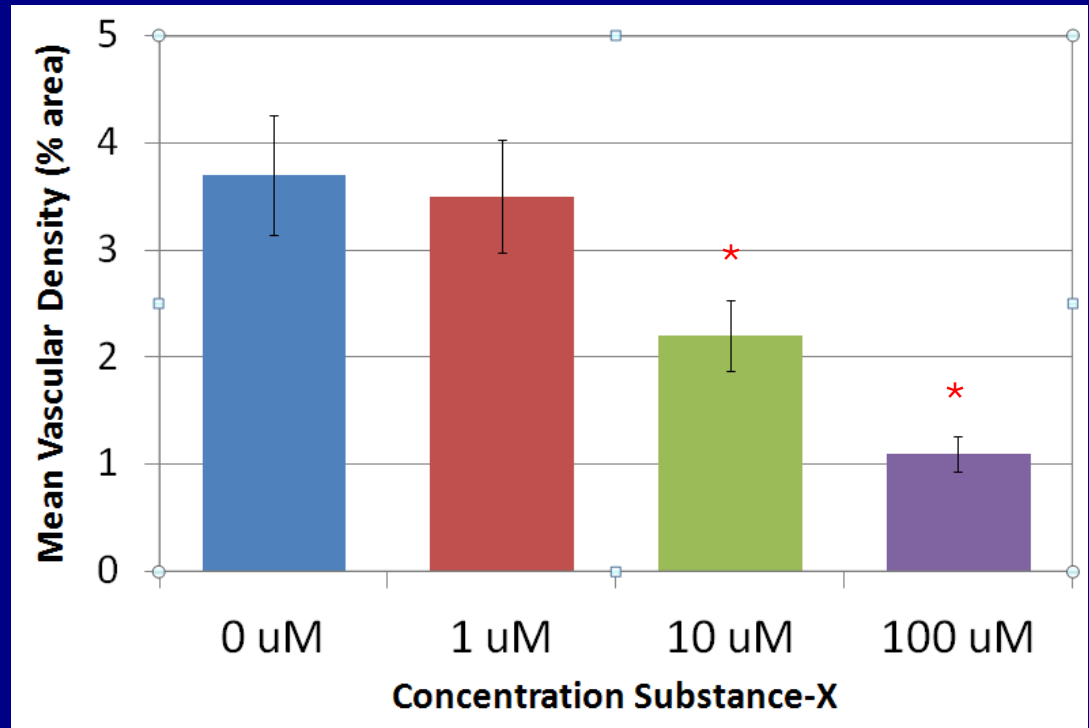
$P < 0.01$

# Results



200X

## Angiogenesis Inhibition



# Conclusions

- Substance-X (10  $\mu$ M – 100  $\mu$ M) inhibits growth of MCF-7 tumors in athymic mice
- Angiogenesis significantly inhibited at higher dosages
- Hypothesis retained
- Substance-X may be a powerful treatment against adenocarcinoma breast tumor growth

# Future Directions

- Establish LD-50 curve
- Explore concentrations
- Vary treatment schedules
- Examine effects on metastasis
- Compare with standard chemotherapeutic agents

# Acknowledgements



- Dr. U.R. Fakedata, UTSSSA
- Belinda Doolittle
- Jason Trimple
- MBRS-RISE GM 60655
- MARC-U\*STAR GM 07717

# Questions?

